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PRACTICES
and PRECEPTS *of*
MARKETING
PREFABRICATED
HOUSES

HOUSING AND HOME FINANCE AGENCY

WASHINGTON 25, D. C.

Housing
Research

918

HOUSING AND HOME FINANCE AGENCY

Office of the Administrator

Home Loan Bank Board

Federal Housing Administration

Public Housing Administration

National Housing Council

PRACTICES
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MARKETING
PREFABRICATED
HOUSES

prepared by . . . Glenn H. Beyer, Professor of Housing and
Design, and Director of Housing Research Center

and

Theodore R. Yantis, Research Associate,
School of Business and Public Administration

Cornell University
Ithaca, New York

HOUSING AND HOME FINANCE AGENCY



Office of the Administrator
Raymond M. Foley, Administrator
Division of Housing Research
Joseph H. Orendorff, Director

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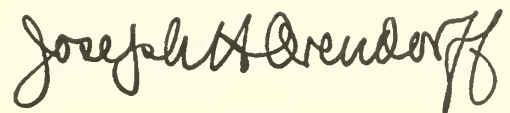
Foreword

Prefabricated houses are relatively a new development in the American industrial picture. Some form of prefabrication appears, at first glance, to contain the answer to the age-old and knotty problem of how to build satisfactory houses at a cost that the American people can afford.

Whether or not prefabrication will provide the answer remains to be proved. Meantime, prefabrication deserves the serious consideration of everyone concerned with housing. To forward that consideration, the Division of Housing Research, Housing and Home Finance Agency, contracted with the Housing Research Center of Cornell University to undertake the study which resulted in this report, "Practices and Precepts of Marketing Prefabricated Houses."

The research was conducted by Glenn H. Beyer, professor of housing and design, and director of Cornell's Housing Research Center, together with James W. Partner, assistant professor of marketing in the School of Business and Public Administration at Cornell, and Theodore R. Yantis, research associate in the same school. Others at the university assisted.

More than 40 manufacturers and 120 dealers in prefabricated housing were interviewed. Their names are listed at the end of this report. In addition, Harry H. Steidle, manager of the Prefabricated Home Manufacturers' Institute; Foster Gunnison, founder of Gunnison Homes, Inc.; and Frank P. Flynn, Jr., executive vice president of National Homes Acceptance Corp., gave valued assistance. E. Everett Ashley 3d, Chief of the Housing Economics Branch, HHFA, acted for the Government.



Director
Division of Housing Research

Tables

	Page		Page
TABLE 1—Types of Dealers, by Business Background	4	TABLE 13—Assistance Provided by Dealers in Arranging Customer Mortgage Financing, by Type of Dealer	15
TABLE 2—Size of Dealer Operation, by Business Background	6	TABLE 14—Percent of Construction Financing Carried by Dealers, 1950 Sales	17
TABLE 3—Type of Dealers, by Size of Their Operation	6	TABLE 15—Percent of Dealers Using Specified Sources of Funds for Payment of House Package	17
TABLE 4—Years Dealerships Established, by Business Background	7	TABLE 16—Percent of Dealers Subcontracting Specified Work	20
TABLE 5—Stages in Family Life Cycle of Families Buying Prefabricated Houses—Compared with Distribution of Families in Selected Areas	8	TABLE 17—Dealers Engaged in Land Development, by Size of Dealer Operation	21
TABLE 6—Comparison of Occupation of Purchasers Buying Prefabricated Houses (1950) and Conventional Houses (1950-1951)	9	TABLE 18—Dealers Engaged in Land Development by Type of Dealers	22
TABLE 7—Percent of Dealers Having Specified Types of Sales Force	10	TABLE 19—Dealers Engaged in Land Development, by Size of Core City Served and by Size of Operation	22
TABLE 8—Distribution of Dealers' Advertising Dollar in 1950	10	TABLE 20—Percent of Dealers Reporting Opposition by Local Labor if Selected Items are Provided by Manufacturer ..	24
TABLE 9—Dealers Having a Demonstration House, by Size of Dealer Operation	12	TABLE 21—Percent of Prefabricated Houses Distributed Through Different Channels of Distribution	26
TABLE 10—Percent of Dealers Using Mortgages from Selected Sources, 1950	13	TABLE 22—Comparison of Size of Manufacturers' Dealer Organizations in 1950 and 1951	27
TABLE 11—Comparison of FHA-Insured, VA-Guaranteed and Conventional Mortgages in 1950 Prefabricated House Sales and 1950-51 Conventional House Sales	14	TABLE 23—Percent of Manufacturers Furnishing Sales Aids to Dealers	30
TABLE 12—Percent of Dealers Using FHA-Insured, VA-Guaranteed and Conventional Mortgages, 1950	14	TABLE 24—Percent of Manufacturers Using Specified Methods of Transporting House Packages	31

Contents

	Page
Foreword	iii
Introduction	1
<i>Section I. Existing Marketing Practices</i>	3
Description of Retail Outlets.....	4
Types of Retail Outlets.....	4
Business Backgrounds of Dealers	4
Reasons for Becoming a Dealer.....	5
Size of Dealer Operation.....	5
Age of Dealerships.....	6
Size and Location of Cities Served	8
Retailer (Dealer)-Customer Relations	8
Classification of Customers.....	8
Sales Practices of Dealers.....	9
The Finance Problem.....	13
Erection Practices of Dealers.....	19
Service Function of Dealers.....	20
General Problems of the Retailer (Dealer)	21
Land Development.....	21
Building Codes	23
FHA Minimum Standards.....	23
Labor	23
Retailer (Dealer)-Manufacturer Relations	24
Degree of Prefabrication.....	24
Degree of Standardization of Basic House.....	24
Channels of Distribution.....	26
Sales Organizations of Manufacturers.....	26
Selection of Dealers.....	27
Dealer Franchises.....	28

Introduction

In conventional building the manufacturing operation with regard to the complete house takes place on the site of "consumption." The component parts are gathered together from many fabricators and given form utility by combining them into the final house.

Since this "production" takes place at the point of consumption, the marketing problem is quite different from other consumer products.¹ Most consumer products are produced in a factory, usually in a form ready for use, and then transported varying distances before they reach the point at which they are used. Products distributed any distance generally have to be transported, stored, financed, a market developed, greater risks taken, etc., all of which comprise to increase the marketing cost. Nevertheless, while distribution costs increase, production costs generally decline more than necessary to offset that increase, and in the end the consumer pays less for the product.

With the advent of the prefabricated housing concept and the manufacturing of a "house package" this new industry began facing problems very similar to those faced by other consumer goods industries in the past.

A prefabricated house, as described in this report, may be defined as follows:

"One having walls, partitions, floors, ceilings, and/or roof composed of sections or panels varying in size which have been fabricated in a factory prior to erection on the building foundation. This is in contrast to the conventionally built home which is constructed piece by piece on the site."²

In some instances this study discusses houses beyond the extremes of this definition. There is no discussion of "ready-cut" housing producers but three firms manufacturing and assembling the entire house in a factory are discussed. These are exceptions, and other than where they are specifically pointed out in the discussion, the report speaks only of the firms falling within the definition given above. The study does not differentiate between site fabrication and large-scale conventional building because of the time and budget limitations of the study.

The statistical material in the first part of this report is based upon economic conditions in the Nation during 1950-51. Generally speaking, a "sellers' market" existed in the housing market during this period. With the belief in many places that the present defense period will continue for a period of years (varying estimates

¹ Marketing is here defined as "the performance of business activities directed to, and incident to, the flow of goods and services from producer to consumer or user." Report of the Definitions Committee, *Journal of Marketing*, Vol. XIII, No. 2, October 1948.

² *Prefabricated Homes*, Commercial Standard CS-125-47, (2d edition), Prefabricated Home Manufacturers' Institute and U. S. Department of Commerce (Washington 1947), p. 1.

ranging from 5 to 20 years) it might be anticipated that this type of market will continue to exist at least in some localities for some time but, on the other hand, some communities should be expected to experience an easing of the tight housing situation.

This study does not undertake an analysis of the possible position of the prefabricated housing industry in a period of declining prosperity or possible depression. There are some indications that under a declining building cycle several different conditions may be anticipated. One of these is the decline of "project" building. Another is the likelihood that competition from conventional builders is apt to be even stronger inasmuch as materials costs (for example, lumber from the local lumber yard) are apt to decline, and labor, at least in individual cases, may be willing to work for a lower wage. The possible position of the prefabricated housing industry under such an era should be given further study, and the industry should begin today preparing for the possible advent of such a period if its future is to be secured.³

In the study that follows, the reader is apt to note the omission of the common-

place comparisons between the prefabricated housing industry, and, for example, the automobile industry. One of the primary reasons is the fact that it seems quite apparent that the possibility of comparison might end with the *production* process. When the distribution process is studied, several differences between the industries appear on the horizon. One of these is the problem of financing the product. Because a house is of such high unit value it implies a financing problem more complex than that of financing the automobile. Another important difference is the buying motive of the consumer. The home buyer usually purchases a house with both rational and emotional buying motives. He is rational in that he wants good construction at a price he can afford and he is emotional in that there is much social reflection and custom in the purchase he makes. While the same characteristics may govern the purchase of an automobile, the difference between the two is a matter of degree. The cost of a house often will be amortized over a period of 15 or 20 years compared with 18 months or 2 years for the cost of an automobile.⁴ Furthermore, the down payment for an automobile does not draw as heavily on lifetime savings.

³ For a discussion of the building cycle see: Pearson, F. A., Myers, W. I., Paarlberg, Don, and DeGraff, H. "Prices, Building and History." *The Appraisal Journal*, Vol. XX, No. 2 (April 1952).

⁴ Previous studies have shown that there has been a rapid rate of turnover among owner-occupied homes, at least during certain periods. (See Fisher, Ernest M., *Urban Real Estate Markets: Characteristics and Financing*. New York: National Bureau of Economic Research, 1951. pp. 42-44.) This would tend to indicate that many home owners buy more than one home in their lifetime. However, it is important to recognize that the equity for purchases after the first is often obtained from the house sold before the next one is acquired. (See "House Purchases in the Five Months Following the Introduction of Real Estate Credit Regulation," *Federal Reserve Bulletin*, Vol. 37, No. 7 [July 1951], p. 794.)

Section I

Existing Marketing Practices

The focus of this section of the report is on the retail level of the marketing process. It might be assumed that any industry producing consumer goods is only as strong as its distribution system. The retailer is a most important part of that system since he represents the ultimate point of sale to the consumer.

In the distribution system of the prefabricated housing industry the retailer serves most of the important functions which he serves in any other industry. In addition he serves a very important purpose—that of completing the house. Before receiving the house package, he prepares the house site and completes the slab or foundation. After the package is received he erects the house, installs plumbing, heating and wiring and finishes the house and rough grading.

Cost-wise, the house package constitutes approximately 41 percent of the selling price of the house. The percentages for each of the items are shown below:

	Mean Percentage*
House Package and Transportation	41.0
Preparation of Site and Slab or Basement	10.0
Erection and Finishing	17.0
Plumbing Installation	10.0
Heating Installation	4.0
Wiring Installation	2.0
Completing Job and Rough Grading	4.0
Overhead and Profits	12.0

* These percentages are based on reports of estimated cost breakdowns by 72 dealers.

The description of existing marketing practices of the prefabricated housing industry is

divided into four parts: (a) *Description of the Retail Outlets*. Here is included a classification of the retail outlets currently being used in marketing prefabricated houses. The retail outlets are described by size, type, and certain other classifications. (b) *Retailer (dealer)—Customer Relations*. Here is included a description of dealers' activities in connection with the selling of the house to the customer. A classification of customers, the dealers' selling program (including selling staffs, advertising and sales promotion, and use of model or demonstration house), and the finance problem are described. In addition there is a brief discussion of erection and service practices. (c) *General Problems of the Retailer (dealer)*. Here is discussed the practices of the retailer relative to problems which are broader than the direct dealer-customer relations described in the previous section of the report. The general problems discussed are land development, building codes and labor. (d) *Retailer (dealer)—Manufacturer Relations*. Here is described specific problems in retailer-manufacturer relations not previously discussed. Among the subjects included here are channels of distribution, manufacturers' sales and dealer organizations, types of dealer franchises, manufacturers' aids to dealers, transportation and storage, damage and shortage between plant and site, and manufacturers' pricing policies. A discussion is included here on the varying practices among manufacturers with respect to standardization of their ultimate product, in contrast to more or less custom building on the part of the manufacturer.

Description of Retail Outlets

Types of Retail Outlets.—An analysis of all of the retail operations studied during this survey would indicate that they can be classified according to function into three groups: dealer-contract builder, dealer-operative builder, and dealer-nonbuilder. Definitions of each of these groups are as follows:

Dealer-contract builder.—A dealer-contract builder is a prefabricated house dealer who builds and sells to the consumer primarily on a contract basis. Houses sold under contract are those houses on which sale has been arranged before construction is begun, in contrast to houses built speculatively. Frequently the houses are sold after the customer has seen a "demonstration" house. It is not pertinent whether the house is constructed on the customer's lot, the builder's lot, or in a development. The majority of these dealers operate only as builders, but in a few instances they also sell real estate other than prefabricated housing. This group represents 55 percent of all dealers covered in this study.

Dealer-operative builder.—A dealer-operative builder is a prefabricated house dealer who builds and sells to the consumer primarily on a speculative basis. The housing units are built either in a speculative subdivision or on individual lots. This group represents 24.2 percent of all dealers.

Dealer - nonbuilder.—A dealer - nonbuilder is a prefabricated house dealer who sells to the consumer primarily on a contract basis, but does not engage in the building operation. Usually, in this type of outlet, the erection and completion work is subcontracted to a builder who constructs the house and frequently subcontracts such work as utility connections and related work necessary for turn-key occupancy. The majority of these dealers are real estate firms. In a few instances they are mortgage brokers, insurance firms or merely sales offices. Also included here are those dealers who sell the house package to the ultimate consumer who builds the house himself or contracts it to a builder. This group represents 20.8 percent of all dealers.

The above definitions make no reference to the size of the dealer's operation; in other words, there might be both large and small dealers in each classification.

Business Backgrounds of Dealers.—The question has frequently been asked within the prefabricated housing industry, "What type of background represents the best background for a dealer selling prefabricated houses?" Below is given a description of the business background of the three types of dealers covered by this survey.

Approximately 38 percent of all of the dealers defined as *contract-builders* previously had been builders of conventional houses or had been em-

TABLE 1.—Types of Dealers, by Business Background

Business background	Contract-builder	Operative-builder	Nonbuilder	All types of dealers
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Builder or building trades.....	37.9	55.2	28.0	40.0
Real estate, finance and/or insurance.....	24.2	24.2	52.0	30.0
Builder and real estate, etc. combined.....	3.0	13.3	4.0	5.8
Building materials supplier.....	3.0	.....	4.0	2.5
Equipment or furniture supplier.....	6.1	3.4	4.0	5.0
Other*.....	25.8	3.4	8.0	16.7
Total.....	100.0	100.0	100.0	100.0
(Number of dealers).....	(66)	(29)	(25)	(120)

*Includes firms where head of business previously had unrelated selling experience, experience in related manufacturing enterprise, or in a different small business or a profession.

ployed in the building trades. Approximately one-fourth of the contract-builders previously had been in the real estate field, and another one-fourth had mixed backgrounds. Those with mixed backgrounds previously had unrelated selling experience, or had come from the prefabricated house factory, or had been in a small business or profession. Among dealers falling in the *operative-builder* category, by far the highest percent had previously been builders or in the building trades. (Approximately 55 percent had been in combined building and real estate business.) Again, approximately one-fourth of these dealers had a real estate background (not in combination with building). On the other hand, dealers falling in the *nonbuilder* category came predominantly from the real estate field. The second most important background for dealers in this category was building or the building trades area. The detailed data are given in table 1.

Reasons for Becoming a Dealer.—While it is assumed that dealers selling prefabricated houses do so for a profit motive, there are different reasons why dealers feel a profit can be made in this enterprise. The reasons given by dealers might be classified into four categories:

1. *Various savings through prefabrication.* These dealers believed that prefabrication provided a means of using less site labor, having a shorter period for the erection process and/or fewer materials acquisition problems. Frequently this group of dealers previously had been in the conventional building business and transferred to prefabricated housing. This group represented 39.3 percent of the dealers.

2. They felt that there was a *demand for low-cost housing* and that prefabrication seemed to be the best means of satisfying this demand. Frequently this reason was given by those dealers previously outside the building industry. This group represented 34.6 percent of the dealers reporting.

3. *To round out a business enterprise.*—The dealers falling in this classification became prefabricated housing dealers because they wanted to “round out” the business in which they were currently operating; that is, usually real estate, finance and/or insurance, or land development. This group represented only 9.2 percent of the dealers.

4. *Miscellaneous.*—A number of reasons fell in this category. Predominant was the reason that the individuals wanted to enter a business different from the one they were in at the time. Other reasons included the fact that the individuals “liked” the building business, the manufacturer convinced them of various merits of selling prefabricated houses, they desired to obtain a discount on their own home, they liked a certain prefabricated house design or they felt that a prefabricated house represented “more house for the consumers’ dollar.” This group represented 16.9 percent of the dealers.

Size of Dealer Operation (number of houses sold).—The median number of houses sold by dealers covered by this study, excluding those sold by other types of outlets (such as subsidiaries, builders of rental units and distributors to dealers), was 31 in 1950.¹ The size of dealers classified by their business background is shown in table 2. It can be observed in this table that the largest dealers (selling 61 or more houses in 1950) predominantly had a building or building trades background; while, on the other hand, the middle-sized dealers (especially those selling from 13 to 24 houses, but also the group selling from 25 to 60 houses) primarily had a background in real estate, finance and/or insurance.

The above does not imply that the contract-builder dealer is usually larger than the non-builder dealer, as might be expected. They are

¹A word of caution is issued in connection with this figure, for two reasons (a) when the median is computed using statistics which were reported by manufacturers, it is considerably lower because manufacturers included many “inactive” dealers in the number selling from 1 to 12 houses in 1950; and (b) because of the methodology used, which required that the field staff “find” the dealers in the 30 cities selected for the sample used in this study, it is possible that in some of the cities the very small dealers were not well known locally and therefore were missed (see discussion under Methodology).

TABLE 2.—Size of Dealer Operation, by Business Background

Size of dealer operation	Builder or building trades		Real estate, finance and/or insurance		Builder and real estate, etc., combined		Building materials supplier		Equipment or furniture supplier		Other*		Total	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
1-12 houses, 1950.....	31.9	(22)	31.9	(22)	4.4	(22)			13.6	(22)	18.2	(22)	100.0	(22)
13-24 houses, 1950.....	16.7	(12)	41.7	(12)	25.0	(12)			8.3	(12)	8.3	(12)	100.0	(12)
25-60 houses, 1950.....	38.7	(31)	43.4	(31)		(31)	3.2	(31)	3.2	(31)	6.5	(31)	100.0	(31)
61 or over houses, 1950.....	50.0	(24)	8.3	(24)	8.3	(24)	1.2	(24)		(24)	29.2	(24)	100.0	(24)
Other type outlets, 1950†.....	45.4	(11)	27.3	(11)		(11)	9.1	(11)	9.1	(11)	9.1	(11)	100.0	(11)
New dealers, 1951.....	50.0	(20)	20.0	(20)	5.0	(20)				(20)	25.0	(20)	100.0	(20)
All sizes of operation.....	40.0	(120)	30.0	(120)	5.8	(120)	2.5	(120)	5.0	(120)	16.7	(120)	100.0	(120)

*Includes firms where head of business previously had unrelated selling experience, experience in related manufacturing enterprise, or in a small business or a profession. †Includes subsidiaries, builders of rental units and distributors.

of about equal size today.² While, on the one hand, the contract-builder might be expected to sell more prefabricated homes because he is not also selling a "competitive" house, and is not dividing his time with a competing activity; on the other hand, the real estate office probably has a wider original outlet (since they had already been in business and probably had their name established), probably has a better selling staff, and frequently has facilities and trained personnel for handling the paper work on the permanent financing for the customer.

With very few exceptions, the operative-builder-dealer is smaller than either of the other two types. Undoubtedly, one reason is his lack of capital for large scale building. Furthermore, he is discouraged in speculative building by his manufacturer in many instances.

The distribution of the different types of dealers, by size of their operation, is shown in table 3.

TABLE 3.—Type of Dealers, by Size of Their Operation

Size of dealer operation	Contract-builders	Operative-builders	Non-builders
	Percent	Percent	Percent
1-12 houses, 1950.....	20.7	44.4	16.7
13-24 houses, 1950.....	13.2	22.2	5.5
25-60 houses, 1950.....	31.0	16.7	55.6
61 or more houses, 1950.....	32.1	16.7	22.2
Total.....	100.0	100.0	100.0
(Number of dealers)*.	(53)	(18)	(18)

*New dealers and other type outlets are not included.

Little relationship was found between the size of dealers and the reasons for becoming a dealer. The only observation which might be made—and it relates to the discussion above—is that those dealers who entered the prefabrication field because of a desire to "round out" their business operation in few instances reached the largest size group, i. e., 61 or more houses in 1950.

Age of Dealerships.—Probably due to the war more than any other single reason, the median

² The "median" averages, which are more acceptable in this instance, are as follows for 1950: contract builders, 34 houses; operative builders, 13 houses; and nonbuilders, 37 houses. The "mean" averages are as follows: contract-builders, 51 houses; operative-builders, 39 houses; and nonbuilders, 44 houses. The latter figures reflect the influence of the few large dealers in the statistical computation.

age of all dealerships studied in this survey is only two years. The two earliest dealerships covered in this study were established in 1936. The distribution of dealerships in various age groups is as follows: established in 1950-51, 42.5 percent; 1948-49, 35.8 percent; 1945-47, 15.9 percent; 1944 or earlier, 5.8 percent. These figures indicate that most of the dealerships are still very young.

Throughout recent years the percentage of the dealers coming from the conventional home building field (builders or in the building trades) has remained steady—in the neighborhood of 40 to 45 percent of the total number of dealers each year. The percent of dealers coming from the real estate field increased until 1948 but has not changed significantly percentwise since that date. On the other hand, those coming from backgrounds in the building supply, equipment and furniture business or miscellaneous fields have declined or remained low. (See table 4.) The highest percent of the large dealers today (those selling 25 houses or over) started in business in 1948-49. Approximately two-thirds of the smallest dealers (1 to 12 houses) started in 1950 but another one-fourth of the dealers in this group started during the two preceding years.

There is some indication in these figures that among existing dealers the tendency has been for them to grow sufficiently to move from one size group to the next, at least during the last few years. This assumption is supported in part by an analysis of the first 6 months sales in 1951

compared with 1950. Such an analysis indicates that dealers tend to grow from the lowest size grouping (1 to 12 houses) to the group selling 25 to 60 houses, but there the growth ceases. In fact, a slight decline is reflected in the 61 or over house group. For example, if the mean average number of houses sold by dealers in the 1 to 12 size group in 1950 is compared with the estimated mean average number for 1951, it is found that there was a 183.7 percent increase in 1951.³ Comparable figures were an increase of 86.6 percent for the 13 to 24 size group and 18.1 percent for the 25 to 60 size group; but there was a 1.4 percent decline in the 61 and over size group.

In this connection, one observation might be reported from a number of interviews: that beyond a certain point in sales, more sales tend to become less profitable due to the graduated tax structure. Accordingly, some dealers almost cease operation after reaching a certain profit level.

In regard to the largest dealers, there also is evidence that some are "temporarily" large while they are developing a subdivision, but when that subdivision is completed their building operation declines, often drastically. This, in effect, represents a major problem for the manufacturer.

It is interesting to note that over half of the new dealers (established in 1951) covered by this study were in three key defense areas: Paducah, Ky.; Aiken, S. C.; and Rock Island, Ill. Also, among the new dealers 60 percent were

TABLE 4.—*Years Dealerships Established, by Business Background*

Business background	1950-51	1948-49	1945-47	1944 or earlier	All periods
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Builder or building trades.....	41.2	37.2	42.1	42.8	40.0
Real estate, finance and/or insurance.....	31.4	34.9	21.0	14.3	30.0
Builder and real estate, etc., combined.....	5.9	9.3			5.8
Building materials supplier.....	1.9		5.3	14.3	2.5
Equipment or furniture supplier.....	5.9	2.3	5.3	14.3	5.0
Other.....	13.7	16.3	26.3	14.3	16.7
Total.....	100.0	100.0	100.0	100.0	100.0
(Number of dealers).....	(51)	(43)	(19)	(7)	(120)

³ The estimated mean average for 1951 was determined by doubling the mean average of houses built the first half of the year. This was believed appropriate because prefabricated house sales during the last six months of the year roughly equaled those of the first 6 months.

contract-builders, 35 percent were *operative-builders* and only 5 percent were *nonbuilders*.

Size and Location of Cities Served.—As it could best be determined in this study, there does not seem to be any concentration of dealerships in cities of any particular size. In fact, there seems to be a fairly even distribution among cities of various sizes. There is, of course, a higher concentration of dealerships in what may be termed the “prefab belt” of Illinois, Indiana, Ohio, and Pennsylvania, together with Michigan, Wisconsin, Kentucky, and New York, where the highest percent of large manufacturers of prefabricated housing are located in this Nation today.⁴

Also, there does not seem to be any relationship between the size of city in which the dealer is operating and the size of the dealer's operation. Small dealers were found in all size cities, as were large dealers, with the exception that no dealers selling over 60 houses in 1950 were found in cities under 25,000 population. Of the new dealers established in 1951, however, it is interesting to note that three out of four were found in cities under 50,000 population.

It can generally be concluded that dealerships have been established by manufacturers where they could be most easily established, without any systematic coverage of the geographic area which the manufacturer could most economically serve.

Retailer (Dealer)-Customer Relations

Classification of Customers.—By far the highest percent of families who have bought prefabricated houses from the dealers covered by this study are young families with small children, herein defined as “founding” families. Sixty-four percent of all of the families who have bought prefabricated houses from these dealers fall in this category. This is significant because, based on related data available, usually only 25 to 30 percent of all families fall in this stage of the life cycle.

This indicates where the greatest market has been for prefabricated houses. It also bears out comments made by dealers to the interviewers that their greatest market was among young

couples who could not find a place to rent when they had small children.

The distribution of families who have purchased prefabricated houses, in each stage of the family life cycle, is shown in table 5. Data comparable to these indicating the “normal” distribution of families in the various stages of the life cycle are available for only two other groups: families at Oak Ridge, Tenn., and commuters living in Monroe County and driving to Rochester, N. Y., to work. Neither set of data is completely comparable because of the peculiarities of the two groups. However, it is felt that the data do provide a general picture which might be used for comparison purposes.

The distribution of prefabricated house buyers among the different occupational groups is shown in table 6. A comparison is shown in this table with the Federal Reserve data for con-

TABLE 5.—*Stages in Family Life Cycle of Families Buying Prefabricated Houses—Compared with Distribution of Families in Selected Areas*

Stage in life cycle*	1950-51 families buying pre- fabricated houses	1950 families Oak Ridge, Tenn.†	1949 Commuter families Monroe County, N. Y.‡
	Percent	Percent	Percent
Young couple, no children.....	16.1	19.7	4.6
Founding family.....	63.9	25.9	30.4
Expanding family.....	13.9	40.6	34.1
Contracting family..	6.1	13.8	30.4
Total.....	100.0	100.0	\$99.5
Families reporting...	(5295)	(N.I.)	(N.I.)

Note—N.I.—No information.

*Young couple: Wife under 35 years; no children.

Founding family: All children under 8 years.

Expanding family: Some children between 8 and 17 years

Contracting family: Wife over 35 years; no children under 18 years.

†Unpublished report: Beyer, Glenn H., *Analysis of Housing Need in Oak Ridge, Tennessee*. Sept. 1, 1950.

‡Beyer, Glenn H., *Housing and Journey to Work*. Ithaca: Cornell University Agricultural Experiment Station. Bulletin 877, August 1951.

\$Percents do not total 100.0 because no information was received from 0.5 percent.

⁴In analyzing the extent of territory served by 39 manufacturers it is found that 12 confined shipments in 1950 to within a 300 mile radius of their plant; 15 shipped some houses, but not exceeding 10 percent of their production, beyond this radius, and the remaining 12 shipped over 10 percent beyond this radius.

ventional house purchasers in 1950-51. The significant fact which can be derived from this table is that among the purchasers of prefabricated houses, a higher percent falls among the skilled, semi-skilled, unskilled and service worker group than in the instance of purchasers of conventional houses. On the other hand, the percent of professional, managerial and self-employed workers among purchasers of prefabricated houses is especially low when compared with the percent of these groups among purchasers of conventional houses.

A related fact is that the largest dealers, and especially those developing subdivisions, sell to a higher percent of skilled and unskilled labor while on the other hand, the percent of professional workers increases among the small dealers, and especially those building on individual lots. This is the result of subdivisions tending toward lower priced houses.

Information was not obtained in this study regarding the income of buyers of prefabricated houses. However, because of the known correlation between occupation and income it can be interpreted from the above that prefabricated housing is finding its greatest market in the middle income group—and perhaps that segment of the middle income group which can only afford the low priced house and “easy” terms provided by many of the manufacturers (annual wage probably from \$3,500 to \$6,000). In this connection, it was frequently reported by the

dealers interviewed that since the establishment of Regulation X their customers are drawn from a higher income group largely because these customers had more savings and could meet the higher down payment required.

Sales Practices of Dealers.—Before analyzing the sales practices of prefabricated house dealers it is necessary to understand something of their type of business organization.

Among 38 percent of the dealerships studied, the selling of prefabricated houses is the firm's only business. In half of these dealerships all of the sales are made by management, but in the remaining half some are made by full-time or part-time salesmen. (Where there are full-time or part-time salesmen, in three cases out of four the salesmen are full-time. These cases usually represent the dealers having large operations—frequently those selling over 60 houses in 1950.)

The remaining 62 percent of the dealers carry on some other business enterprise in connection with their sale of prefabricated houses. Among the highest percent of these dealerships there are some salesmen but no separate sales force for prefabricated houses. However, in an important percent of the dealerships the sales are made only by the management; and in some instances there is a separate sales force for prefabricated houses. The detail is shown in table 7.

This situation indicates that prefabricated house dealers have been taking advantage of the tight market which existed at the time of

TABLE 6.—*Comparison of Occupation of Purchasers Buying Prefabricated Houses (1950) and Conventional Houses (1950-51)*

Occupation groups	Prefabricated house purchasers		Conventional house purchasers*	
	(Number)	Percent	(Number)	Percent
Professional and semi-professional.....	(211)	4.8	(143)	10.5
Managerial and self-employed.....	(357)	8.1	(241)	17.8
Clerical and sales.....	(771)	17.5	(240)	17.7
Skilled, semi-skilled, unskilled and service†.....	(2778)	63.1	(598)	44.1
Retired.....	(176)	4.0	(64)	4.7
Other‡.....	(110)	2.5	(71)	5.2
Total.....	(4403)	100.0	(1357)	100.0

*Source: “House Purchases in the Five Months Following the Introduction of Real Estate Credit Regulation,” *Federal Reserve Bulletin*. Vol. 37, No. 7 (July 1951), p. 789. (Note: It is possible that a few prefabricated houses were included in this study.)

†Skilled and semi-skilled are combined with unskilled and service because of difficulty of obtaining accurate information for each group in this study.

‡Includes protective service, farmers, unemployed, students, and housewives groups.

the survey. As an example, the attitude was expressed by many of the dealers that a separate sales force was not needed. It can be seen by deduction from the data in table 7, that ap-

TABLE 7.—*Percent of Dealers Having Specified Types of Sales Force*

Type of sales force	Dealers	
	(Number)	Percent
Prefabrication dealers only business.....	(46)	38.3
Sales only by management.....	(22)	18.3
Salesmen.....	(23)	19.2
No information.....	(1)	.8
Prefabrication only portion of business.....	(74)	61.7
Sales only by management.....	(27)	22.5
Separate sales force for prefabricated houses.....	(11)	9.2
No separate sales force for prefabricated houses.....	(32)	26.7
No information.....	(4)	3.3
Total.....	(120)	100.0

proximately 40 percent of the dealers have no salesmen in their organization. This usually includes the smaller dealerships where the dealer himself, frequently assisted by his wife or other members of his family, handles all of the sales. In some instances they were merely "taking orders." Very rarely, under this type of dealership, are outside firms used to sell the product because, according to several dealers interviewed, "the margin of profit was too small to pay the commission required."

Furthermore, very little advertising is done by the prefabricated house dealer. Of the dealers operating in 1950, 78 percent indicate that they did some advertising, 11 percent indicate that they did no advertising, and another 11 percent give no information on this question. However, of the dealers doing some advertising, only 18 percent report spending at least 1 percent of their gross sales in advertising of any type.

Newspaper is the advertising medium most commonly used among those dealers doing any advertising. This advertising is generally used in connection with the opening of a demon-

stration house. A few dealers use the radio and another small number use brochures and direct mail. The amount spent on any advertising media is usually a small arbitrary amount felt necessary in order to accomplish a particular job which the dealer wants done. The distribution of the advertising dollar among the different advertising media is shown in table 8.

TABLE 8.—*Distribution of Dealers' Advertising Dollar in 1950*

Distribution of advertising dollar	News-paper	Radio-TV	Brochure direct mail	Other
	Percent	Percent	Percent	Percent
80-100%.....	67.4	1.1	.....	1.1
60- 79%.....	7.9	2.2	.....	1.1
40- 59%.....	7.9	6.8	1.1	2.2
20- 39%.....	2.2	4.5	2.2	.....
Less than 20%....	1.1	16.9	24.7	13.5
None.....	13.5	63.5	72.0	82.1
Total.....	100.0	100.0	100.0	100.0
(Number of dealers).....	(89)	(89)	(89)	(89)

Although half of the manufacturers interviewed in this study have established cooperative advertising programs, usually on the basis that they will pay 50 percent of the cost of the advertisement up to a certain amount, the above indicates the general lack of use of these programs. Approximately 60 percent of the dealers receiving advertising material from their manufacturers, nevertheless, report that it is "excellent" or "good."

The general lack of advertising and use of the manufacturer's advertising material, again indicates the housing market which existed at the time of the survey.

A type of media not included in the above discussion because dealers frequently did not consider the expenditure part of their prefabricated house advertising, is the classified section of the telephone directory. Sixty percent of the dealers have some type of listing in the classified section of the telephone directory, but in many instances (almost two-thirds of this total) this listing is in connection with the firm's real estate operation or other business and does not mention prefabricated houses. The

advertising in the classified section in most instances is paid by the dealer himself, but for one out of five dealers it is paid by the manufacturer (frequently reflecting the policy of one particular manufacturer to carry the advertisement for its dealers in the classified section), and in a few instances it is paid on a cooperative basis between the manufacturer and the dealer.

The heading under which the advertisement appears in the classified section of the telephone directory varies from city to city throughout the country. In most instances the advertisement appears under "contractor," "contractors-general," or "home builders," but in other instances under "buildings—prefabricated."

Most dealers still do not use the term "prefabricated" in any of their advertising. In fact, only 14 percent of the dealers covered by this study use that term in any advertising. On the other hand, approximately 84 percent use the manufacturer's name in their advertising. In many of these instances the advertisement also carries the brand name of the house such as "Thrift," "Champion," or "Pollman." In lieu of the word "prefabricated" in the advertising, such terms as the following are frequently seen: "factory-built," "pre-engineered," and "manufactured homes."

As yet few of the manufacturing firms are undertaking national consumer advertising. However, among the dealers representing those firms which have started this broad coverage, it was indicated that some benefits are now being gained from this advertising. It is impossible, of course, to get any measurement of these benefits and the instances where they were mentioned are fairly isolated.

Another difficult factor to measure is the prevalence of sales based on customer testimonials. A high percentage of dealers (almost 70 percent) indicate that they have sold some prefabricated houses on the basis of testimonials of previous purchasers. The small dealers tend to place more emphasis on this factor than the larger ones. This is possibly due to the fact that the majority of the large dealers are project builders (as will be discussed later), operating in larger cities.

Perhaps the most important selling aid used by prefabricated house dealers is the *demonstration* or *model* house. Although this is also a common selling aid used by conventional build-

ers, it is one of the most controversial among dealers at the present time—some dealers feel that the demonstration house is essential and others that it is not necessary at all. The argument on both sides should be well established by this time since three-fourths of all of the dealers covered by this study have had a demonstration house at one time or another.

As might be expected, a higher percent of the large dealers, than of small ones, have had a demonstration house: approximately 84 percent of the dealers selling from 25 to 60 houses in 1950, and 92 percent of the dealers selling 61 or more houses in that year, have had a demonstration house at one time or another.

There is also an indication that many dealers feel that such a house is essential when the dealership is first established, but becomes less essential as the dealership becomes more active and as more of the houses of their particular type are built in a community. For example, of the new dealers established in 1951 and covered by this study, 75 percent had a demonstration house.

On the other hand, only 26 percent of all the dealers studied had such a house at the time of the interview. This supports the conclusion stated above that many of the dealers dispose of their house after they have been in operation for a time. For example, the percent has declined among the largest dealers from the 92 percent who have had a demonstration house at one time to only 33 percent having one at the time of the survey. The percent figures for all groups of dealers are shown in table 9.

Following is a summary of the pro and con arguments regarding a demonstration house given by the various dealers interviewed in this study:

The following arguments were advanced in behalf of the demonstration house:

1. The purchaser of any commodity usually likes to see a sample before buying. This applies as well to housing.
2. With the general interest in housing today, the opening of a demonstration house is almost certain to bring out many of the public to observe it. It is quite natural that seeing a model is more impressive than seeing a picture,

even if the individuals are not in the market for a house at the present time.

3. The effects of the demonstration house are "cumulative"; i. e., people frequently come in months or years later stating that they had gone through the house when it was open and are now ready to buy.

4. The use of a demonstration house is a good means of overcoming customer bias to what they have previously considered "prefabricated housing"; i. e., it serves as a tool for educating the public.

5. The demonstration house is a dealer-controlled advertising medium. This is in contrast to showing an owner-occupied house where some family member might make remarks regarding minor faults of the house as he is taking prospective customers through it.

6. Prorating the cost of the demonstration house to the many houses frequently sold from it, and considering salvage value when it is finally sold, the actual cost of maintaining it is low.

The arguments advanced against the use of a demonstration house are summarized below:

1. It is costly and ties up a dealer's capital for an unlimited period of time.

2. Many of the people going through the demonstration house are merely curious and only a very small percent are actually interested in buying.

3. An "open house" day is a poor time to close sales. If advantage is to be taken of many prospects, it is costly to maintain a force of salesmen in the house at the time it is being shown.

4. A demonstration house must be furnished to be shown to its best advantage, and most dealers have difficulty in arranging to have local stores furnish the house.

5. An "open house" draws large crowds causing heavy wear and tear on the house and greatly reducing sales value.

6. There are several substitutes for a demonstration house which are not as costly and still "do the job." In many instances a previous customer is willing to show the house he has purchased and this is more effective than showing a house in which no family is living. In this connection a few dealers pay the housewife a certain amount per showing, for example, \$1. In other instances the dealer uses his own residence. Often in project developments, one of the houses is used as an office.

Experience seems to have shown that if a dealer is to make any volume of sales it is highly desirable to have a demonstration house, at least until such a time that the house becomes well known locally or until other arrangements can be made to show a house to certain customers. Frequently manufacturers aid

TABLE 9.—Dealers Having a Demonstration House, by Size of Dealer Operation

Size of dealer operation	All dealers		Dealers at one time having demonstration house		Dealers who disposed of demonstration house		Dealers who retain demonstration house	
	(Number)	Percent	(Number)*	Percent	(Number)	Percent	(Number)	Percent
1-12 houses, 1950.....	(22)	100.0	(15)	68.2	(9)	40.9	(6)	27.3
13-24 houses, 1950.....	(12)	100.0	(7)	58.3	(4)	33.3	(3)	25.0
25-60 houses, 1950.....	(31)	100.0	(26)	83.8	(22)	70.9	(4)	12.9
61 or more houses, 1950..	(24)	100.0	(22)	91.7	(14)	58.3	(8)	33.3
Other type outlets, 1950..	(11)	100.0	(5)	45.5	(2)	18.2	(3)	27.3
New dealers, 1951.....	(20)	100.0	(15)	75.0	(8)	40.0	(7)	35.0
Total.....	(120)	100.0	(90)	75.0	(59)	49.2	(31)	25.8

*Excludes 24 dealers who have never had a demonstration house, 2 dealers who did not report and 4 dealers building only rental housing.

their dealers in the demonstration house program either through a field representative assisting in making the arrangements for the "open house" day, or through having a factory sales representative or representatives present for the opening. Public reaction in almost every instance is reported favorable to the demonstration house by the dealers interviewed.

The Finance Problem.—One of the major problems of the prefabricated housing industry, and possibly the critical one for some manufacturers in the industry, is the problem of financing the sale of houses. While this also is an important problem among conventional builders, the prefabricated house manufacturer frequently has a more serious problem because of a continuing lack of complete acceptance by some financing institutions.

The problem occurs at all levels in the distribution process—at the manufacturer's level, at the dealer level, and at the consumer's level. From the viewpoint of the dealer, the financial problem presents itself initially in the requirement for the payment of the house package as received from the manufacturer. It occurs again when funds are needed for the erection of the house. It occurs most importantly, at the time when the customer must arrange payment for the house.⁵

An analysis of the financing problem is always made difficult by the fact that the problem at these different levels carries an interrelationship between each level. For example, if a mortgage commitment with a financing institution can be arranged for the customer as mortgagor before construction is begun, the mortgage may be used as the security device for a construction loan, and in many instances, for a loan which can be used in part for payment of the house package. On the other hand, if the mortgage has not been arranged for the customer prior to sale, it is generally more difficult to complete arrangements for the construction and permanent mortgage loan and to obtain the funds required for the payment of the house package.

Because of the importance of mortgage financing in the purchase of houses it is treated first in the following discussion.

The mortgage problem.—Unless the purchase price of a house can be paid for in cash by the buyer, it is necessary for the buyer, as a supplement to his own cash resources, to borrow from a capital supplier—typically, a financial institution—the funds required to meet the purchase price. The funds borrowed are secured ordinarily

TABLE 10.—*Percent of Dealers Using Mortgages From Selected Sources, 1950*

Source of mortgage	Dealers	
	(Number)*	Percent
Savings and loan associations:		
80-100 percent.....	(10)	11.9
60- 79 percent.....	(3)	3.6
40- 59 percent.....	(3)	9.5
20- 39 percent.....	(5)	6.0
1- 19 percent.....	(3)	9.5
None.....	(50)	59.5
Total.....	(84)	100.0
Commercial and savings banks:		
80-100 percent.....	(14)	16.6
60- 79 percent.....	(2)	2.4
40- 59 percent.....	(5)	6.0
20- 39 percent.....	(10)	11.9
1- 19 percent.....	(11)	13.1
None.....	(42)	50.0
Total.....	(84)	100.0
Life insurance companies:		
80-100 percent.....	(15)	17.8
60- 79 percent.....	(5)	6.0
40- 59 percent.....	(5)	6.0
20- 39 percent.....	(5)	6.0
1- 19 percent.....	(2)	2.4
None.....	(52)	61.8
Total.....	(84)	100.0
Mortgage loan companies and "acceptance" corporations:		
80-100 percent.....	(11)	13.1
60- 79 percent.....	(1)	1.2
40- 59 percent.....	(4)	4.7
20- 39 percent.....	(1)	1.2
1- 19 percent.....	(3)	3.6
None.....	(64)	76.2
Total.....	(84)	100.0

*New dealers and other type outlets are not included.

⁵ The problem with respect to paying for the package, and the construction loan, are frequently referred to as "interim financing"; that is, financing needed for that "interim" period after the house has been manufactured but before permanent financing has been arranged on the part of the customer.

by a mortgage on the property which constitutes the subject matter of the transaction. In this study it appears that a much lower percent of prefabricated than of conventional houses are paid for in cash: the most reliable information available indicates that in the neighborhood of 16 percent of conventional houses⁶ as compared with *only 3 percent* of those prefabricated (based on 1950 sales by dealers covered in this study) are sold without a mortgage. Although 57 percent of the dealers report some cash sales, the above data would indicate that the number per dealer is very small.

The principal sources of mortgage credit are savings and loan associations, commercial and savings banks, life insurance companies, mortgage loan companies, and manufacturers' subsidiary mortgage companies (sometimes referred to as "Acceptance Corporations"). The percent of dealers using the various sources and the degree to which they were used in 1950 is shown in table 10. The role played by private money (individuals) was not sufficiently significant to be shown. It is to be expected, as this table confirms, that savings and loan associations and commercial banks are important sources of mortgage credit to the customers buying prefabricated houses. The important role played by life insurance companies and the frequency of financing by mortgage loan and

acceptance companies can also be noted from the table.

A significantly greater percent of mortgages on prefabricated houses are FHA-insured than on conventional houses, based on the houses sold in 1950 by dealers covered in this study. Over half of the prefabricated house mortgages were handled through the FHA, as compared with only 29 percent FHA-insured mortgages for all houses covered by the 1951 Federal Reserve Survey.

On the other hand, a somewhat lower percent of prefabricated than of conventional house mortgages were VA-guaranteed, although there was only a 4 percent difference; but a much lower percent of prefabricated houses carried conventional mortgages. The detail is shown in table 11.

TABLE 12.—*Percent of Dealers Using
FHA-Insured, VA-Guaranteed and
Conventional Mortgages, 1950*

Type of mortgage	Dealers	
	(Number)	Percent
FHA:		
80-100 percent.....	(37)	40.2
60- 79 percent.....	(10)	10.9
40- 59 percent.....	(9)	9.8
20- 39 percent.....	(12)	13.0
1- 19 percent.....	(17)	18.5
None.....	(7)	7.6
Total.....	(92)	100.0
VA:		
80-100 percent.....	(13)	14.1
60- 79 percent.....	(9)	9.8
40- 59 percent.....	(4)	4.4
20- 39 percent.....	(14)	15.2
1- 19 percent.....	(22)	23.9
None.....	(30)	32.6
Total.....	(92)	100.0
Conventional:		
80-100 percent.....	(8)	8.7
60- 79 percent.....	(4)	4.4
40- 59 percent.....	(6)	6.5
20- 39 percent.....	(6)	6.5
1- 19 percent.....	(16)	17.4
None.....	(52)	56.5
Total.....	(92)	100.0

TABLE 11.—*Comparison of FHA-Insured,
VA-Guaranteed and Conventional Mortgages
in 1950 Prefabricated House Sales and 1950-51
Conventional House Sales*

Type of mortgage	Prefabricated house sales	Conventional house sales*
	<i>Percent</i>	<i>Percent</i>
FHA.....	52.4	29.0
VA.....	32.8	37.0
Conventional.....	14.8	34.0
Total.....	100.0	100.0
(Number of house sales).	(5,397)	N. I.

Note—N. I.—No information.

*Source: *Federal Reserve Bulletin*, *op. cit.*, p. 795, (see footnote 4, p. 2).

⁶ Fisher, *op. cit.*, p. 61, (see footnote 4, p. 2) this reference includes discussion of new and existing houses; also *Federal Reserve Bulletin*, *op. cit.*, p. 794, (see footnote 4, p. 2).

Approximately 40 percent of the dealers indicate that over 80 percent of the mortgages arranged for their customers were FHA-insured in 1950. On the other hand, only 8 percent of the dealers report no FHA-insured mortgages among their customers in that year.

Approximately 14 percent of the dealers indicate that over 80 percent of the mortgages arranged for their customers in 1950 were VA-guaranteed. Approximately 33 percent of the dealers report no VA-guaranteed mortgages.

Only 9 percent of the dealers report they used conventional mortgages almost exclusively, but approximately 57 percent report no conventional mortgages. The detailed percentage breakdown of dealers using the various types of mortgages is shown in table 12.

In connection with the FHA-insured mortgages, two-thirds of the dealers report that the FHA valuations usually covered the selling price of the house, with the remaining one-third indicating that the valuation was usually below the selling price. Also, approximately 72 percent of the dealers report that the average mortgage was usually 80 percent of FHA valuation, 14 percent report it to be between 60 and 80 percent, and 14 percent below 60 percent.

With regard to the assistance which dealers give to customers in arranging their mortgage financing, it is believed that the pattern is quite similar to that followed in conventional building. The dealers covered in this study generally fall into two groups: (a) those dealers who refer their customers to lending institutions where most of the arrangements are made, and (b) those dealers who handle the arrangement for mortgage financing in their own offices. Approximately 51 percent of the dealers do the former, and approximately 43 percent the latter

(see table 13). In very few instances is the customer left to make his own financial arrangements.

There is a somewhat different pattern followed by the different types of dealers. Among *contract-builders*, the highest percent (approximately 57 percent) turn the customer over to the lending institution. The highest percent of *operative-builders* also follow this pattern. On the other hand, among the *nonbuilder* group of dealers the highest percent handle the arrangements of mortgage financing themselves. It will be recalled that many of the dealers in this group are also engaged in a real estate, finance and/or insurance business, and therefore would be expected to have the facilities and staff for this work.

Approximately 68 percent of the dealers indicate that Regulation X caused a reduction in their sales, 25 percent indicate that it had no effect on their sales and 7 percent do not answer the question. Of those dealers reporting that it reduced their sales, approximately 35 percent indicate that the reduction had been only slight, 47 percent indicate that it had been considerable, and the balance of 18 percent state that their sales were either reduced seriously or were completely shut off.

The mortgage finance problem with regard to prefabricated houses, described above, is both similar to and different from the problem with regard to conventional houses. It is similar in that the general type of security is the same, the mortgagees are the same, and the legal instruments and legal statutes governing are the same. The differences between prefabricated and conventional construction, which are significant from the point of view of the mortgage financing problem, are primarily twofold: (a) pre-

TABLE 13.—*Assistance Provided by Dealers in Arranging Customer Mortgage Financing, by Type of Dealer*

Degree of assistance	Contract-builder	Operative-builder	Nonbuilder	All types of dealers
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Customer arranges mortgage.....	3.1	7.1	13.0	6.0
Dealer turns customer over to lending institution.....	56.9	50.0	34.8	50.9
Dealer handles arrangement of mortgage in his office..	40.0	42.9	52.2	43.1
Total.....	100.0	100.0	100.0	100.0
(Number of dealers).....	(65)	(28)	(23)	(116)

fabrication is a different system of construction and (b) this difference permits much more rapid erection of the house, which has its implications in this case.

The first of these differences is primarily important because some financing institutions still are more familiar with the traditional type of conventional construction, and therefore have hesitancy with regard to any new system of construction; at least any system in which a part of the construction is carried on in a factory, using new types of materials, and with a part of the structural system concealed when the house is being erected at the site. Therefore, the greater the difference between the prefabricated housing unit and the conventional unit, the greater is apt to be the difference between the valuation and mortgage on the prefabricated house when compared with the conventional house. This not only applies to the structural system, but also to the types of materials and design.

The second important difference is the speed with which the prefabricated house is erected. The procedures existing today with regard to arranging mortgage financing for the customer have grown up with and have been developed for the conventional housing industry. It is found in this study that this frequently means a delay in the case of the prefabricated house, because, although the house could be completed structurally in a few days, the occupant does not move in until his mortgage financing has been arranged (unless the mortgage financing has been arranged before construction). Dealers report that a median of *six weeks* usually elapses between the time of arrival of the house package at the site and the date of final settlement with the customer.

In concluding this discussion on the mortgage finance problem, it should be stated that significant progress has been made by prefabricated house dealers on the problem over a period of the last 18 months or 2 years. It is quite evident that the majority of the dealers representing at least the largest manufacturers are not having as much difficulty with the problem today. There are a number of reasons for the improved situation. First, from the standpoint of the financing

institutions, it appears that they are gaining a greater familiarity with the types of prefabricated houses being erected. Secondly, from the point of view of the prefabricated housing industry, the majority of the houses being produced today appear very similar in design to conventional houses, and many of them are constructed of the same materials; that is, most of the houses are made of wood or wood products, and most of the designs lean toward the colonial, ranch house, or what is more recently being termed "conservative modern." Also, an important portion of the construction work (foundation, subcontracted work, finishing, etc.) is being carried on at the site permitting inspection of this work.

Construction financing.—The close relationship of construction loans to the permanent mortgage has been mentioned above. Very frequently the two are merged. When they are, a permanent mortgage is placed on the property prior to construction, the mortgage serving as the basic pledge for the property both during and after construction. This type of loan arrangement precludes the necessity of arranging an independent loan to cover construction requirements and the need for arranging permanent financing in the nature of a long-term mortgage loan at the end of the construction period. The mortgage thus in essence underlies the construction loan and it is important therefore to have discussed the mortgage problem first.

It was found in this study that dealers selling prefabricated houses frequently obtain financing assistance during the construction process from a number of different sources—a situation similar to that regarding conventional building.⁷

Initially, in the construction process, the dealer frequently uses a portion of his own funds to supplement deposit funds supplied by customer buyers. This applies to four out of five of the prefabricated house dealers covered in this study. The amount of these funds, however, varies significantly among different dealers. For example, almost one-fourth of the dealers carry less than 25 percent of the construction cost themselves, while, on the other hand, another one-fourth finance almost the entire construc-

⁷ See Wheeler, Bayard O. *Financing House Construction in the Northwest*, Housing and Home Finance Agency, Housing Research Paper No. 17, Washington, D. C., November 1951. For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25 D. C., 30¢.

tion job. The detailed distribution is shown in table 14.

TABLE 14.—*Percent of Construction Financing Carried by Dealers, 1950 Sales*

Percent of total construction financing	Dealers	
	(Number)	Percent
Over 75 percent.....	(18)	25.7
51-75 percent.....	(4)	5.7
26-50 percent.....	(11)	15.7
0-25 percent.....	(16)	22.9
None.....	(14)	20.0
Amount varies greatly.....	(7)	10.0
Total.....	(70)	100.0

Secondly, it is common practice for dealers to rely upon credit from material suppliers to finance their operations. A total of 80 percent of the dealers covered by this study used this type of credit in 1950.

Finally, approximately 60 percent of the dealers obtained construction loans from financial institutions. In most instances the mortgage on the property is pledged as security for these loans (in three out of every five instances), but in some cases the dealer uses an open line of credit at the bank not necessarily linked to the mortgage on the property. Among those dealers not using bank credit for construction financing (40 percent of the total), a fairly equal distribution exists among those dealers who use their own funds entirely (see discussion above), and those who rely upon an "acceptance" corporation operated by or closely linked with the manufacturer of the house they are selling. In a few instances, the house package is sold to the customer for erection, and the customer himself arranges any construction financing necessary.

In this connection, the down payment received from the customer with his order, and any additional payment which the customer makes before completion of the house or arrangement of the mortgage, are handled in different manners by different dealers. Approximately three out of five dealers place this payment from the customer in with their company funds. The balance of two out of five dealers place the down payment in escrow.

Financing payment of the package.—The problem of payment for the house package by the dealer calls for a rather substantial outlay of cash at the beginning of the building period, an amount which typically represents an important portion of the total completed construction cost. To finance this purchase of the house package, the dealer must have sufficient funds of his own for this purpose or must obtain such funds from outside sources.

In analyzing the source of funds for payment of the house package, approximately 54 percent of the dealers indicate they receive these funds from a financial institution, including savings and loan associations, banks, insurance companies and mortgage loan companies. A total of approximately 44 percent, however, indicate that they use their own funds. In the responses given by the dealers in this instance, their own funds include the down payment which had been paid by the customer and has either been combined with their funds or has been placed in escrow. Only 18 percent of the dealers receive assistance from the manufacturer. These dealers generally represent those using the manufacturers' "acceptance" corporation, but in a few instances include dealers who are given credit by the manufacturer. The distribution is shown in table 15. The source of funds listed as "other" in this table usually represent the customer himself.

Manufacturer's assistance to dealers on problems of finance.—The assistance given dealers by manufacturers differs greatly in both nature and scope among the various manufacturers. It is impossible to describe here all of the types of

TABLE 15.—*Percent of Dealers Using Specified Sources of Funds for Payment of House Package*

Source of funds	Dealers	
	(Number)	Percent
Financing institution.....	(43)	54.4
Dealer's funds.....	(35)	44.3
Manufacturer's assistance, including "acceptance" corporations.....	(14)	17.7
Other.....	(4)	5.1
(Number of dealers).....	*(79)	.....

*Numbers and percents should not be added because some dealers indicated more than one source.

assistance, and the scope of assistance, given by prefabricated housing manufacturers to their dealers. However, from an analysis of the various plans, three general patterns of assistance seem to evolve. These three patterns are described briefly below:

**PATTERN 1.—OPEN LINE OF CREDIT FROM
MANUFACTURER TO DEALER**

Many of the smaller and some of the middle-sized manufacturers finance the sale of the house package to dealers on open account, pending the receipt of funds by the manufacturer from the source of permanent mortgage financing.

To carry this dealer credit the manufacturer commonly obtains funds on open lines of credit from banks and other lenders. Typically this type of dealer financing is undertaken only after the dealer has sold the house to a buyer and has arranged permanent mortgage financing for his customer.

The proceeds of that portion of the mortgage loan covering payment of the house package are advanced to the manufacturer by the financial institution supplying the mortgage funds, on authorization of the purchaser as mortgagor, with as much of the balance of the proceeds of the loan as necessary being advanced to the dealer to complete the house construction.

**PATTERN 2.—MORTGAGE COMPANY TO
FINANCE PAYMENT OF PACKAGE
(INTERIM FINANCING)**

Under this pattern the customer and the dealer sign a mortgage assignment which authorizes the financial institution (mortgagee) to pay to the mortgage loan company that part of the mortgage money to cover the cost of the house package delivered to the dealer. The dealer then sends the mortgage documents, including the assignment form, to the manufacturer along with the buyer's application for a loan to cover payment of the package together with the buyer's note payable to the mortgage loan company. On shipment of the house package to the dealer

by the manufacturer, the manufacturer forwards the documents to the mortgage loan company which pays the manufacturer for the cost of the house package. The financial institution pays off the note covering the mortgage company's advances to the manufacturer as a part of its construction loan proceeds advanced to the dealer.

**PATTERN 3.—MANUFACTURER'S SUBSIDIARY
OR RELATED FIRM SERVING AS MORTGAGE
LOAN COMPANY TO SERVICE DEALERS**

The mortgage company under this financial pattern is either a wholly owned subsidiary of the manufacturer or an affiliated company financed in part by the principals of the manufacturing firm. The operations of this type of company are financed through the equity investment of shareholders (the private or public sale of stock) and through short term bank loans secured usually by mortgage collateral.

In financing the sales of houses to buyers, the subsidiary or affiliated finance company performs functions typical of mortgage financing companies in general—the making of construction and permanent mortgage loans and the securing of mortgage loans which they have originated and subsequently sell to investing financial institutions. Where such financing affiliates are employed, these companies usually require FHA insurance or VA guarantee commitments on mortgages handled and in some instances an assured secondary mortgage market to insure subsequent sale of mortgages originated.

Insofar as the manufacturer is concerned, the use of a subsidiary financing company quite clearly facilitates payment of the house package by the dealer providing a definite and assured source of funds for this purpose, with a minimum delay affecting the arrangements for interim financing needed by the dealer. The mechanics of the procedure respecting the dealer's package payment to the manufacturer are essentially the same as described under Pattern 2.

This type of mortgage financing agency is sometimes described in practice as an "acceptance corporation." From the standpoint of function it is similar to the function of the recognized acceptance corporations commonly serving the automobile industry. In operation, however, it is essentially a mortgage loan company and in this regard it differs considerably from the automobile acceptance corporations due primarily to the inherent differences between house and automobile loans described briefly in the "Introduction."

Conclusion.—Approximately 50 percent of the dealers covered by this study indicate that they feel their present financial arrangements are satisfactory. The remaining 50 percent, however, indicate that their arrangements were not adequate.

It remains obvious that the finance problem is one of the most important facing the industry today. It has often been stated, in reference to this industry, that mass production cannot be achieved without mass sales and it has been added that mass sales likewise cannot be achieved without mass financing. Some evidence of the correctness of this statement might be found in the fact that, despite the sellers' market in housing existing at the time of this study, none of the prefabricated housing plants was operating to existing capacity. The limitation on production which exists has a direct relationship to the inadequate supply of credit which exists for the dealers selling prefabricated housing units today. Because the other levels of financing, i. e., package and construction financing, are so closely related to mortgage financing, it might be assumed that the important problem

is to develop a broader mortgage market for prefabricated houses.⁸

In approaching this problem, it is evident in the study that many manufacturers and dealers alike feel that part of the solution rests in the establishment of a manufacturer's subsidiary or related firm as described under Pattern 3. Even in the instances of those dealers who have available the services of an "acceptance" corporation, however, the indication is that this is not the complete solution. Among this group of dealers only 38 percent report the use of this service. Some dealers expressed the attitude that as the public became better acquainted with the type of house being manufactured today, the demand for a broader mortgage market would develop and that such a market would ultimately appear. Other dealers, however, are of the opinion that this requires too lengthy a period and more immediate steps must be taken to provide them with a more adequate supply of credit.

Erection Practices of Dealers.—The basic difference between prefabricated and conventional housing is the fact that a part of the prefabricated house is manufactured in a factory. This immediately implies less construction work at the site for the prefabricated house.

Normally, the construction work on a prefabricated house, as in the case of the conventional house, is divided into four stages: (a) putting in the slab or foundation, (b) erecting the shell, (c) installing the plumbing, heating and electrical wiring, and (d) completing the house including interior, exterior, grading and clean-up.⁹

The time-savings under prefabrication are in the erection of the shell, since the other work

⁸The importance of the secondary mortgage market is not included in this discussion. There are indications in the study that the lack of a larger secondary mortgage market is a limiting factor in the sale of prefabricated houses. However, no evidence appears that the problem of a secondary mortgage market is any more serious in the instance of prefabricated housing than it has been in the case of conventional construction.

⁹The "average man-hours" for erecting prefabricated houses and completing them for turn-key occupancy has not been computed in this study because it would be a meaningless figure. For example, different manufacturers distribute houses of different degrees of prefabrication in the plant; therefore, different degrees of completion are required by dealers erecting the house at the site. Also, different dealers perform different functions themselves and subcontract other functions and it is extremely difficult to obtain accurate estimates of man-hours from dealers not only for the work they undertake themselves, but especially work which is subcontracted. Even though a cost accounting system for erecting prefabricated houses might be more simple than for erecting a conventional house, it is found that records actually kept by prefabricated house dealers are equally incomplete or completely lacking. (In this connection, the Housing and Home Finance Agency has recently published a complete system of record keeping. See *Record Keeping for the Small Home Builder*, Housing and Home Finance Agency, Washington, D. C., January 1952. For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., \$1.25.)

necessary is similar to that needed and undertaken for conventional building. It is a rather common practice among many of the dealers to erect the shell in a matter of one or two days, with a median crew of six men (the range being from 2 to 14 men per crew). The size of the crew and the number of man-hours required varies greatly depending upon the degree of prefabrication in the plant, the type and size of panels prefabricated and the dealer's method of operation.

If a "typical" erection crew could be described, it would probably be comprised of an erection foreman (sometimes called "lead" carpenter) and five other laborers (in some instances including one or two skilled carpenters but in many instances only common laborers). All of the dealers covered by this study report that the training of this erection crew takes place at the site. Only 7 percent report that the erection foreman is given any factory training and in no instances are other members of the crew given training at the factory. The manufacturer in almost all instances provides a factory representative at the site, however, to supervise the erection of the first few houses.

Dealers representing approximately half of the manufacturers are provided with an erection manual or other specifications for erection.

Approximately half of the dealers interviewed use union labor for erection of their houses. Whether or not union labor is used depends upon the prevailing practice in the community.

One of the serious problems found among dealers is the need for scheduling construction in order to maintain continuous work for the erection crew (or crews). It is difficult to increase or decrease the number of crews to accommodate serious fluctuations in sales.

It is also found that the erection operation is simplified in instances of project development as against instances where houses are erected on scattered lots throughout the community. It is found to be quite common that dealers are able to reduce the erection time of their houses as they become more familiar with the house and its construction.

As in the case of conventional housing, electrical work and plumbing are subcontracted by most dealers. Almost three-fourths of the dealers also subcontract the installation of heating equipment, and a high percent subcontract excavation

and painting. The percent of dealers subcontracting all types of work is shown in table 16.

TABLE 16.—*Percent of Dealers Subcontracting Specified Work*

Work subcontracted	Dealers	
	(Number)	Percent
Electrical work.....	(104)	95.4
Plumbing.....	(101)	92.7
Heating.....	(78)	71.5
Excavation.....	(74)	68.1
Painting.....	(73)	67.9
Foundation or slab.....	(56)	51.4
Grading and finishing.....	(51)	46.8
Roofing.....	(40)	36.7
Wood finish.....	(34)	31.2
Other (tile, plastering, flooring, walks and drives, etc.).....	(15)	13.8
(Number of dealers).....	*(109)	.....

*Numbers and percents should not be added because dealers usually subcontract more than one item.

Because of the similarity of the houses erected by the dealers it is found that subcontracting work for prefabricated houses potentially should cost less than on conventional houses, excepting where the comparison is with project developments of standardized conventional houses. Subcontractors become familiar with the work, and the time required accordingly should be reduced.

Service Function of Dealers.—Prefabricated house dealers do little towards servicing the houses they erect, according to findings in this study. The dealer generally follows the pattern of the conventional housing industry in considering the sale of a house a "one shot" operation—meaning that they are not necessarily concerned about repeat sales. This situation undoubtedly has developed from the fact that the dealer does not expect to sell the family another house later. Furthermore, there are usually an ample number of local service organizations available in every community to take care of the needs of the new home buyer, for example, plumbers, electricians, heating repair men.

In most instances, dealers report that a warranty is provided to their home buyers by the manufacturer. This warranty usually is limited to workmanship and materials. There often is a time limit of 6 months to a year. Only in isolated instances does the dealer provide any additional warranties; but the warranty provided

by the manufacturer generally represents more for the customer than one provided with conventional building.

Most dealers do take care of complaints of minor items brought to their attention by home owners—frequently not until the home owner has made one or more requests of the dealer. Usually the dealer uses one of the members of his construction crew or a general handy man to handle such complaints. They generally instruct customers how to operate the utilities of the house. Few dealers issue a service manual of any usefulness.¹⁰

It is found in the study that practically no dealers encourage home owners to come back to them for their servicing job. In other words, most dealers are not in the “servicing” business. There is evidence that the *nonbuilder group* directs more attention to the servicing operation, than either the *contract-builders* or *operative-builders*, probably because they are primarily engaged in selling real estate and, as some of these dealers reported, “had a reputation for taking care of their customers.”

A high percentage of the dealers retain a file of customers who have purchased a house, but this file is not kept up if the house is resold, and, based on the evidence found, serves little purpose even among original home buyers.

General Problems of the Retailer (Dealer)

The following paragraphs describe the practices of prefabricated housing dealers relative to some of the problems which are broader than

the direct dealer-customer relations described above. Among the general problems discussed are land development, building codes, and labor.

Land Development.—Approximately 59 percent of all of the dealers covered in this study have engaged in some land development activity. Most of the remaining dealers are building entirely on individual lots already developed. These lots are selected either by the customer or by the dealer.

As would be expected, a higher percent of the large dealers have engaged in some land development. In fact, among those dealers selling over 60 houses in 1950 almost all have engaged in some land development. In contrast to this, among the smallest group of dealers—those selling one to 12 houses—the ratio was only slightly over one-third. The detailed data for all sizes of dealers are shown in table 17.

Among those dealers who have engaged in some land development, approximately 35 percent are doing all of their building on this land. Another 25 percent of the dealers are building over 80 percent of their houses (but not all of them) on this land. At the other extreme, 20 percent of the dealers indicate that they are not building any houses on the land they developed. Many of the dealers in this group indicate that they are just in the process of developing the land and have not begun erecting housing on it yet.

Examining the different types of dealers, it can be observed, in table 18, that 69 percent of the *operative-builders* have been engaged in some land development activity compared with 56 per-

TABLE 17.—*Dealers Engaged in Land Development, by Size of Dealer Operation*

Size of dealer operation	Dealers engaged in some land development	Dealers engaged in no land development	Total	
	<i>Percent</i>	<i>Percent</i>	(<i>Number</i>)	<i>Percent</i>
1-12 houses, 1950.....	38.1	61.9	(21)	100.0
13-24 houses, 1950.....	50.0	50.0	(12)	100.0
25-60 houses, 1950.....	48.4	51.6	(31)	100.0
61 or over houses, 1950.....	95.8	4.2	(24)	100.0
Other type outlets, 1950.....	45.5	54.5	(11)	100.0
New dealers, 1951.....	63.2	36.8	(19)	100.0
All sizes of operation.....	58.5	41.5	(118)	100.0

¹⁰ An exception is the Mobilhome Corp. of America, Bakersfield, Calif. The house sales from this manufacturer usually are made direct from the plant or from the plants of its licensees. However, the firm has developed a very extensive servicing manual entitled *Your Mobilhome*.

cent of the *contract-builders* and 52 percent of the *nonbuilders*. In the instance of the *nonbuilder* group, the dealers engaged in some land development usually subcontract the entire building operation to a local builder. In some instances the dealer develops the land but sells the houses directly to the consumer who erects the house or has it erected by a builder.

Again, as might be expected, almost all *operative-builders* erect their houses on the land which they have developed compared with approximately 86 percent of the *contract-builders* and 77 percent for the *nonbuilder* group.

The large project developments are located in the metropolitan areas. Among the dealers selling more than 60 houses in 1950, approximately 57 percent developed land in metropolitan areas where the core city has a population of 250,000 or more. Only 35 percent of these large dealers developed land in metropolitan areas where the core city has a population between 50,000 and 250,000, and the remaining small percent are operating in cities under 50,000 (usually cities over 25,000 population).

As can be seen in table 19, by far the highest percent of dealers engaged in land development in 1950 operated in metropolitan areas. In contrast to this, it is interesting to note in the table that approximately 58 percent of the new

dealers in 1951 engaged in land development in cities under 50,000. There is implied in these figures, of course, a close correlation with the high percent of new dealers who are located in the smaller cities; but, on the other hand, the figures do indicate that some land development is taking place in the smaller cities because of an increasing shortage of lots even there and the greater ease with which they can build a number of houses in the same location. In this regard, prefabricated house dealers appear to be following the pattern of conventional builders.

A finding closely related to the above is that available land suitable for development is generally scarce in most areas today. Dealers covered by this study voice a number of complaints: building codes or other municipal regulations keep them from building in certain undeveloped areas; the high cost of providing utilities is often prohibitive; the process of land development is time consuming; and in some instances the capacity of local utilities has been reached and extension cannot be made to new subdivision areas on this account.

There is evidence that the competitive position of prefabricated housing diminishes in large scale housing developments, even though there might be economies in so building for the pre-

TABLE 18.—*Dealers Engaged in Land Development, by Type of Dealers*

Type of dealer	Dealers engaged in some land development	Dealers engaged in no land development	Total	
	Percent	Percent	(Number)	Percent
Contract-builders.....	56.2	43.8	(64)	100.0
Operative-builders.....	69.0	31.0	(29)	100.0
Nonbuilders.....	52.0	48.0	(25)	100.0
All types of operation.....	58.5	41.5	(118)	100.0

TABLE 19.—*Dealers Engaged in Land Development, by Size of Core City Served and by Size of Operation*

Size of dealer operation	Under 50,000	50,000— 250,000	250,000 and over	Total	
	Percent	Percent	Percent	(Number)	Percent
1-12 houses, 1950.....	12.5	50.0	37.5	(8)	100.0
13-24 houses, 1950.....	16.7	66.6	16.7	(6)	100.0
25-60 houses, 1950.....		53.3	46.7	(15)	100.0
61 or more houses, 1950.....	8.6	34.8	56.6	(23)	100.0
Other type outlets, 1950.....	20.0	40.0	40.0	(5)	100.0
New dealers, 1951.....	58.3	25.0	16.7	(12)	100.0
All sizes of operation.....	17.4	42.0	40.6	(69)	100.0

fabricated house dealer as well. On the other hand, many of the dealers covered in this study indicate that they are being forced to go into land development because of the scarcity of individual scattered lots in their respective areas, as previously indicated. These dealers, however, generally voice an intention to remain in prefabrication primarily for two reasons: (a) The dealer believes that he can erect and complete more houses in the same period with the same size labor force, under prefabrication. In times and areas of labor shortage, this appears to be an important advantage. (b) Many dealers indicate the merits of using their manufacturer as their purchasing agent. In other words, their manufacturer carries the responsibility of purchasing all the materials and parts which comprise the house package shipped to them from the factory.

Building Codes.—Another of the real problems facing the prefabricated housing industry, and greatly influencing its market potential, is the building code problem. It did not require this study of industry to discover that a majority of the building codes in effect in urban areas today specify the kind and dimensions of materials which must be used rather than the performance which is required. Since prefabrication inherently implies at least a degree of standardization, the problem of a multitude of different local building codes is bound to be an important one.

Despite the adversity and the significance of the above statement, it is interesting to note that many of the dealers covered by this study do not place the building code problem as the single most important problem they face. On the contrary, most of the dealers indicate that they have discovered ways and means of bypassing this problem, at least for the present. This was accomplished in part through an adaptation of the manufactured house to meet the requirements of the codes in the particular localities. In other instances, however, it was accomplished by searching for market areas where the particular building code was not a detriment, or where it permitted erection of the type of house being sold by the dealer. In the first instance, there is little doubt but that the final price of the house is increased due to the changes required; and in the other instance, the market area for the house is limited.

Although percent estimates are not determinable from the study, there is evidence that many of the manufacturers and dealers alike have made extensive efforts to obtain changes in building codes in many communities. To a degree they have been successful.

Both dealers and manufacturers covered in this study report the very serious need for a new uniform type of code for the country as a whole; one of the *performance* type to replace those of the *specification* type. Such a code, although generally uniform, could still recognize such regional variations as snow load, wind load or ground conditions.

FHA Minimum Standards.—Several manufacturers indicate that the variations in minimum standards required by the different FHA State and District offices tend to increase the cost of the prefabricated house by prohibiting a higher degree of standardization. Again, while these manufacturers generally recognize the need for certain regional variations, because of climatic and geographic differences, it is the lack of consistency of the other requirements which create a manufacturer's distribution problem in marketing a standardized product in the various areas.

Labor.—The labor problem is described at both the manufacturer and the local levels.

The primary labor problem reported by manufacturers is the shortage of good labor.

Approximately 75 percent of the manufacturers covered by this study indicated that their plants are unionized. It is the consensus among these manufacturers that this aids in selling their house, even though in some instances it provides what are described as minor problems. The outstanding of these is that spray painting was not permitted in some plants.

The outstanding labor problem reported by dealers likewise is the scarcity of good labor. The lack of an available supply of carpenters is a common complaint.

As indicated in the discussion on dealer's erection practices, approximately 50 percent of the dealers covered by this study are using union labor. The determination is usually made on the basis of local practice in the community. Some dealers report that there previously existed local labor opposition to prefabricated houses but this opposition tends to disappear as the work-

ers become more familiar with the house construction.

There are some reports of increased inefficiencies with an increase in the number of crews, especially if the additional crews are not employed on a permanent basis. This problem is again related to the shortage of good carpenters, supervisors or crew foreman.

Approximately 10 percent of the dealers reporting on the question indicate that they have no opposition from local labor in using plumbing lines, wiring and heating ducts if they are provided by the manufacturer. Among the balance, greatest difficulty is encountered in using plumbing supplied by the manufacturer and least in using heating ducts. The percent distribution is indicated in table 20. It is the general consensus of the dealers interviewed that local plumbers and electricians have a strong feeling against the manufacturer providing these materials.

Retailer (Dealer)-Manufacturer Relations

This section describes those aspects of the prefabricated house manufacturers' operation concerned with the marketing of their product not previously discussed. Much of the material in this section is in the nature of description of general relationships between the dealer and the manufacturer, but, in some instances, the discussion is focused more particularly on types of operations of different manufacturers.

Degree of Prefabrication.—In analyzing the degree of prefabrication of the various houses in which factory production is involved, the following classifications might best describe

TABLE 20.—*Percent of Dealers Reporting Opposition by Local Labor if Selected Items are Provided by Manufacturer*

Item	Dealers	
	(Number)	Percent
Plumbing lines.....	(65)	90.3
Wiring.....	(47)	65.3
Heating ducts.....	(35)	48.6
No opposition.....	(7)	9.7
(Number of dealers).....	*(72)	.....

*Numbers and percents should not be added because most dealers listed more than one item.

existing practices today: (a) The construction of the entire house in a factory—the highest possible degree of prefabrication; (b) the production of sections or panels for walls, partitions, floors, ceilings and/or roof in the factory and the balance of the construction at the site; and (c) the cutting of lumber and other materials in the factory for more or less “assembly” of the multitude of pieces and parts at the site—that is, the ready-cut house which represents the lowest degree of prefabrication.

Because of the definition of prefabrication used in this report and defined earlier, most of the firms covered by this study fall in the second classification. Within this classification, however, there is considerable variation and lack of consistency among the various manufacturers. Different manufacturers prefabricate different sections or panels, and even among those manufacturers prefabricating the same sections or panels, frequently there is variation in size and type of materials used.

Three manufacturers not falling within the definition of prefabrication described earlier, who erect the entire house in a factory, were also covered by this study. These three manufacturers are the Mobilhome Corp. of America at Bakersfield, Calif.; one of its licensees, Mobilhome Corp. of the Twin Cities, Inc., of Minneapolis, Minn.; and the Nicoll Lumber Co. of Redwood City, Calif. These three firms, at the time of the survey, were using only the direct manufacturer-to-consumer channel of distribution (described later).

No strictly “ready-cut” house producers are included in this study but some of the firms do ship many ready-cut parts with their panels or sections. These usually are the firms which tend more toward the custombuilt prefabricated houses which are described in more detail in the next part of this section.

Degree of Standardization of Basic House.—In analyzing the present practices of the industry with regard to the degree of standardization of the ultimate houses produced by each manufacturer, it is found that there is no single or uniform philosophy of operation among the various firms comprising the industry today. In fact, within the definition of a prefabricated house which was given earlier (and omitting reference at this point to the three manufacturers

named above who produce a complete house in the factory) there seem to be two theories or "philosophies" of operation existent among manufacturers in this Nation.¹¹ On the one hand, there is the theory that the ultimate product produced by any one manufacturer should have a high degree of standardization.¹² Generally, proponents of this theory indicate a belief that the greatest cost savings can be achieved by producing a limited number of basic house models. In order to accomplish their end considerable control is maintained over the ultimate design of the house sold to the consumer. A characteristic of some of the largest manufacturers holding to this philosophy is that they often use brand names in their advertising for the product being sold to their dealers.

Based on the information provided by the various manufacturers during the course of this study, the following manufacturers appear to fall in this classification:

Best, W. G., Factory Built Homes, Inc.
 Florida Builders, Inc.
 Gunnison Homes, Inc.
 Harnischfeger Corp., (Houses Division)
 National Homes Corp.
 Page and Hill Homes, Inc.
 Pease Woodwork Co.
 Thyer Manufacturing Corp.

Examples of some of the brand names advertised recently include National Homes and their "Saratoga House," Gunnison Homes and their "Coronado" and "Catalina" and Florida Builders and their "Forty-Niner."

Proponents of the other philosophy do not seek a high degree of standardization in the ultimate house models sold; in fact, in many instances there is little or no standardization because the manufacturer is willing to develop various designs for different individual consumers or different project developments.¹³ By the very nature of this philosophy the manufacturing firms falling within this category usually do not advertise to or attempt to sell

a brand name directly to the ultimate consumer. Rather, these firms have the philosophy that they are a "service agency" to the existing house building industry. They still fall completely within the definition given above inasmuch as standardized factory-made house panels are used in the houses built.

On the basis of information provided by the manufacturers during this study, it appears that the following fall within this classification:

American Houses, Inc.
 Atkinson, W. P., Lumber & Manufacturing Co.
 Crawford Corp.
 Expandable Homes, Inc.
 Green Lumber Co.
 Housemart, Inc.
 Houston Ready-Cut House Co.
 Johnson Quality Homes, Inc.
 Lumber Fabricators, Inc.
 Marshall Lumber Co., Inc.
 Midwest Houses, Inc.
 Nichols and Cox Lumber Co.
 Northern Homes Corp.
 Semico, Inc.
 Southern Mill & Manufacturing Co.
 Southwest American Houses, Inc.
 Texas Housing Co.

All of the manufacturing firms covered by this study cannot be placed in one or the other of the above classifications. In fact, a high percent of the manufacturers fall somewhere in between; that is, they do promote certain standard models although not to the extent of those mentioned in the first group, but they also tend to "custom build" a prefabricated house for the individual consumer or project. Examples of the firms which fall in this in-between category, based on the information obtained during this study, are the following:

Admiral Homes, Inc.
 Alleghany Homes Corp.
 Ford, Ivon R., Inc.
 GBH-Way Homes, Inc.
 General Industries, Inc.
 Knox Corp.

¹¹ In referring to standardization, reference is made only to the "basic" house. Even among those manufacturers turning out highly standardized basic houses, considerable variations are allowed in many instances on such factors as right hand and left hand plans, elevations, breezeways and carports, porches, color, and other similar factors. On this point, it might be noted that *among conventional houses produced today greater variation is found only among the higher priced houses.*

¹² In this connection, see Gunnison, Foster "The Economics of Mass-Distribution and Mass Sales of Prefabricated Homes," *Prefabricated Homes*, February 1944.

¹³ In this connection, see the bulletin *Prefabrication Explained*, issued by American Houses, Inc., August 1, 1949, especially pp. 6 and 7.

Illinois Lumber Manufacturing Co.
 New Century Homes, Inc.
 Prefabriators, Inc.
 Richmond Builders, Inc.
 Seott Lumber Co.
 Sears Roebuck and Co.
 Wadsworth Building Co.
 West Coast Mills.

*Channels of Distribution.*¹⁴—The channel of distribution most widely used by the prefabricated housing industry today is that from manufacturer to dealer to consumer. Almost 90 percent of the prefabricated houses sold in 1950 by the manufacturers covered in this study followed this channel of distribution. (In some instances the dealer is not an “independent” marketing agency but rather one that has a relationship to the manufacturer, for example, a controlled dealership, a wholly owned subsidiary or dealership in which the principals of the manufacturing firm have a financial interest but not necessarily control.)

In addition to this channel of distribution some prefabricated houses are sold by the manufacturer direct to consumer, some follow the channel of distribution from manufacturer to distributor to builder to consumer and a very low percentage are sold direct to industrial firms. The percentage distribution is shown in table 21.

Many different outlets have been used for the marketing of prefabricated houses. At the time of this study the dealer, in the manufacturer-dealer-consumer channel of distribution, was a *contract-builder*, an *operative-builder* or a *non-builder*, the latter usually representing real estate firms. In the past, many types of outlets were used which were not found to be generally prevalent today. The outstanding examples are department stores and lumber yards. Why these types of outlets failed in the past is problematical. However, with regard to department stores it might be argued that this is not the customary method of buying a home and the influence of tradition is strong in home purchasing. In regard to lumber yards, it might be argued that by selling prefabricated houses the lumber dealer is putting himself in competition with his primary clients, the local contractors and builders. For this reason, he is apt to de-

emphasize his prefabricated house dealership operation.

While the figures given in table 21 indicate the predominance of use of the manufacturer-dealer-consumer channel of distribution, this does not imply that this is the channel of distri-

TABLE 21.—Percent of Prefabricated Houses Distributed Through Different Channels of Distribution

Channel of distribution	Percent
Manufacturer—dealer—consumer:	
Independent dealer.....	84.8
Dealer a related firm.....	4.9
Manufacturer direct to consumer.....	6.8
Manufacturer—distributor—builder—consumer.....	3.0
Manufacturer to industrial firm.....	0.5
Total.....	100.0
(Number of houses).....	(41,675)

bution used by all manufacturers. In fact, of the manufacturers covered in this study, only 20 distributed all of their houses through this channel in 1950. Another 12 of the manufacturers distributed more than half of their houses, but not all, in this manner. Another five firms used this channel for the distribution of less than half of their houses.

The three firms mentioned earlier as building the entire house in the factory exclusively used the manufacturer direct to consumer channel of distribution. A total of four other manufacturers distributed over half of their houses, but not all of them, in this manner. Another 13 manufacturers distributed less than half of their houses in this manner.

Only two of the manufacturers covered by this study sold house units through the manufacturer-distributor-builder-consumer channel and two sold units to industrial firms in 1950.

Sales Organizations of Manufacturers.—There is no uniform type of sales organization on the part of the various manufacturers producing prefabricated housing. In fact, again, there is great variation among the different firms.

¹⁴ “The channel of distribution for a product refers to the course of ownership taken in the transfer of title to it as it moves from manufacturer or producer to the final consumer.” (Nystrom, Paul H., *Marketing Handbook*, New York: The Ronald Press Co., 1948, p. 219.)

As would be expected, the larger firms have larger sales organizations, although there is not necessarily comparability among them. The larger firms usually have "factory representatives" who serve as liaison men between the dealer and the plant. In some instances the jobs of the factory representatives are specialized, but in the majority of instances they are called upon to do whatever the manufacturer feels necessary to create, train and maintain the dealer organization. Some of the varied jobs include: serving as technical advisers in erection, locating and interesting new dealers, locating and developing sources of mortgage money, and inspecting the dealer's finished product to determine whether it maintains company standards.

Among the smaller companies, practically all of these different functions are carried out by top management. The person within the organization most qualified to do the work, or with sufficient time to carry it on, assumes the particular responsibility.

Generally speaking, manufacturers had more dealers in 1951 (a median of 30 dealers) than in 1950 (a median of 25 dealers). Dealer organizations ranged in size from one dealer to nearly 300. In 1950 approximately 10 percent of the manufacturers, compared with almost 20 percent in 1951, had 150 or more dealers. The distribution of manufacturing firms by the size of their dealer organization is shown in table 22. This table, of course, includes only those manufacturers using the manufacturer-to-dealer-to-consumer channel of distribution for some or all of their house sales.

Despite the generally limited number of dealers now franchised by manufacturers, 13 of the firms report they are aiming at a national market for their product. A total of 19 report they are aiming their distribution toward the sectional market in which they are located. The remaining one manufacturer is interested only in what it termed the "local" market. The manufacturers now having over 100 dealers in their organization are generally aiming at a national market. As it has been indicated earlier, however, up to this time there appears to have been little systematic recruiting of dealers by manufacturers within the geographic distribution area which they can most economically serve.

Although the dealer turnover in various manufacturers' organizations was not determinable in

this study, there are indications that this presents a formidable problem for the manufacturer. There are some informal indications of this by the manufacturers, and more significant indications in the selected communities where all existing dealers were interviewed. In a considerable number of instances it is found that dealers have changed manufacturers, have returned to conventional building, or have ceased building operations entirely.

Selection of Dealers.—Immediately after the war and during the period to 1949 it was usually necessary for manufacturers to seek out their dealers in the various communities where they desired to have a sales outlet for their houses. Prospects would be found after a factory representative had obtained a listing of possibilities in the community from such sources as local banks or other financing institutions, local home builders' associations, local real estate boards, or the local Chamber of Commerce. In some instances dealers were found through personal contact at home builders' conventions or other meetings.

This situation has tended to become reversed during the last year or two, however. Recently there has been a tendency for dealers to seek out manufacturers whom they would like to represent. In many instances this has been the result of advertising campaigns conducted by the various manufacturers for potential dealers, and in other instances, of individuals or firms hearing of successes achieved by dealers in neighboring towns and after this seeking a franchise. This new trend has also been caused in part by small builders turning to prefabrication. Their reasons have been various, not the least

TABLE 22.—*Comparison of Size of Manufacturers' Dealer Organizations in 1950 and 1951*

Number of dealers	1950		1951	
	Manufacturers		Manufacturers	
	(Number)	Percent	(Number)	Percent
150 or more.....	(3)	9.4	(6)	18.8
100-149.....	(4)	12.4	(2)	6.3
75- 99.....	.....	.....	( 1)	3.1
50- 74.....	(3)	9.4	(5)	15.6
25- 49.....	(11)	34.4	(9)	28.1
Less than 25....	(11)	34.4	(9)	28.1
Total.....	(32)	100.0	(32)	100.0

of which was the shortage of labor in many communities.

At the time of this study, almost half of the dealers representing the various manufacturers covered by the study initially contacted the manufacturer, whereas, the balance of slightly more than half were originally contacted *by* the manufacturer.

Once contact is made between the manufacturer and a prospective dealer, a somewhat typical procedure is to have the prospective dealer interviewed by a company representative, followed by a checking of his financial position and credit history. Different manufacturers require different minimum amounts of initial capital, and in many instances the same manufacturer requires different amounts for different dealers depending upon the area in which he is recruited, his business background and similar factors. It is a rather common practice for the manufacturer to require a minimum order of houses, the size of this order frequently depending upon the area the dealer is to serve, at the time the dealer is selected.

When this procedure is completed, one of two methods is usually used in franchising the prospective dealer by the manufacturer: a total of 17 of the manufacturers report that the selection is a responsibility of a company representative, while 13 of the manufacturers use the tool of a franchise committee which finally decides upon the dealer's qualifications. (The balance of the manufacturers give no information on this question.)

The reasons for ultimate success of a dealer, given by the various manufacturers, are not too meaningful or enlightening.

According to 17 of the manufacturers it depends largely upon "good business management ability." Others feel that in order for a dealer to be successful he must have some or all of the following qualifications: know building methods and costs, be a good coordinator, be energetic and enthusiastic, and have sufficient financial backing.

Manufacturers indicate somewhat different types of background as being most desirable for dealers. A total of 25 manufacturers suggest a combination of home building and/or construction

background, seven manufacturers desire a real estate background (other than direct building or construction), and six prefer dealers who have a background in finance. Only five manufacturers think that a "sales" background is most desirable and another seven merely indicate that the prospective dealer should have a history as a successful businessman. (Some manufacturers gave more than one answer.)

*Dealer Franchises.*¹⁵—All manufacturers have some form of agreement with their dealers. At the time of this study nine manufacturers have some "exclusive" agreements among their dealers—usually agreeing with the dealer that no other dealer would be franchised for his area—but 24 manufacturers have issued only open or non-exclusive franchises. In the latter instance, however, it is the practice of manufacturers to assure their dealers that a second dealership will not be established in the area as long as they are satisfied with the dealer's operation. An exception to this usually is among dealerships in the larger cities where it is considered impossible for one dealer to properly service the entire area.

There is considerable variation in the size of geographic area which is served by various dealers on the basis of the franchise they hold. A total of 13 manufacturers determine the geographic limits of the territory on the basis of a somewhat informal market observation combined with an analysis of the dealer's qualifications; six of the manufacturers use political boundaries such as the counties (frequently several) or the State; four manufacturers establish the territory through discussion and agreement with the dealer; six do not limit the dealer to any specific territory; and there is no information for four of the manufacturers.

The geographic areas stipulated in the franchise are generally found to be of little significance among most of the dealerships today, however. It is fairly evident that the area in most instances is either greater than the dealership can serve, or at least, greater than is being served. This is despite the fact that manufacturers report a common problem of new dealers frequently desiring a broader territory than the manufacturer is willing to give them. This problem, however, usually disappears soon after the

¹⁵ The term "franchise" as used in this study is a written agreement between the manufacturer and dealer regarding the dealer's operations in selling the manufacturer's product. This written agreement could be either formal or informal, in the latter instance usually being in the form of a letter signed by both parties.

dealer begins operation and recognizes the cost and difficulty of building at greater distances from his headquarters.

Eleven manufacturers attempt to establish sales quotas for their dealers in the franchise they issue. In some instances the reference is to a definite quota, but in others it is merely a right to establish a quota at some future date. As in the instance of the geographic area stipulated in the franchise, the sales quota (if the franchise contains one) likewise is not found to be of great significance in the dealer's operations. Several manufacturers report that even low or reasonable quotas are difficult to enforce, and the desirability of attempting to enforce them appears questionable with the difficulties which apparently still remain in recruiting the required number of new dealers for the industry today.

A total of 22 manufacturers establish no time limit in their franchise agreement, but indicate that the agreement can be terminated through written notice by either party, giving proper notification to the other. On the other hand, 11 manufacturers set a time limit, usually for a period of 1 year, with that period being automatically renewable.

Controls Exercised by Manufacturers.—Few manufacturers attempt to exercise any significant controls over their dealers. A total of 17 manufacturers report an attempt to retain control over the construction of the house. The type of control exercised, however, varies in degree from "the house shall be constructed in good workmanlike manner" to "construction must be in strict accordance with plan and no change in design." Usually in these instances the manufacturer's field representative inspects the construction of the houses, the inspections ranging from periodic spot checks to inspecting all houses. Four manufacturers specifically indicate that they rely upon the inspections of the financing institution for the purpose of their construction control. Among the balance of the manufacturers with dealer organizations there apparently are no construction controls.

Five manufacturers attempt some control over the dealer's advertising program. The usual control is the requirement that the dealer use the promotional material furnished by the manufacturer (or, in the case of other cooperative advertising that he present the advertising copy to the manufacturer for approval) and/or that

the dealer spend a stipulated percent or amount in an advertising budget. There is little adherence to this control.

Among other controls, five manufacturers require that the dealer must maintain an office or place of business that is satisfactory to the manufacturer and four manufacturers require the dealer to maintain a model or demonstration house. Others have such requirements as "to make this the dealer's major activity," "to maintain accurate records open to the manufacturer at all times," "to service all houses free of charge for 1 year," "to report all suggestions made by buyers to the manufacturer at no cost," and "to conduct all dealings on the highest level of business ethics."

Little or no control is attempted by the manufacturer over the dealer's final sales price of the houses. In some instances manufacturers require that the dealer's profit be limited to a stated percent. Manufacturers generally do not permit their dealers to sell other types of prefabricated houses, but in some instances they are permitted to sell conventional houses. (Other than real estate firms that quote the number of existing houses sold by their firm, very few conventional houses are sold by prefabricated house dealers. Approximately 7 percent of the dealers report building from one to five conventional houses and 4 percent from six to 15 houses along with their prefabricated house construction in 1950.)

Services Furnished Dealers by Manufacturers. Only 11 manufacturers report that they hold some form of dealer meetings. These meetings vary in nature. Usually the content of the meeting covers such subjects as new house models, specific building program, sales potentials, mortgage financing problems, bookkeeping, and better erection methods.

A total of nine manufacturers offer some training in accounting and maintaining of cost records, with the systems varying from a complete accounting system and training the dealer in its use to merely providing the dealer with cost breakdowns to compare with his own. Six of the manufacturers offer some type of training in general office management, in addition to the training in accounting and record keeping.

At the time of the study the volume of advertising undertaken by manufacturers was fairly insignificant. Only 10 manufacturers report spending over 1 percent of their gross sales for

advertising; 13 report some advertising but less than 1 percent of their gross sales; 4 report no advertising; and there is no information for 6 manufacturers. This advertising is either directed to the trade, usually to attract prospective new dealers, or to the consumer, and in some instances to both. With the exception of the few instances where broader consumer advertising programs are being undertaken, consumer advertising is usually confined to local media, generally newspapers, and in these instances is carried out in cooperation with the dealer.

In addition to the above, six manufacturers are undertaking advertising in financial trade journals, primarily for the purpose of acquainting lending institutions with their product.

Different manufacturers provide other forms of selling aids to their dealers. These range in nature from printed material, including folders, booklets and sales manuals, to business forms. The detail is shown in table 23.

TABLE 23.—*Percent of Manufacturers Furnishing Sales Aids to Dealers*

Type of sales aid	Manufacturers	
	(Number)*	Percent
Sales material:		
Folders.....	(22)	66.7
Booklets.....	(21)	63.6
Sales manual.....	(17)	51.5
Catalogs.....	(15)	45.5
Prospect cards.....	(7)	21.2
Sales letters.....	(5)	15.2
Mailing cards.....	(4)	12.1
Others.....	(14)	42.4
Other type aids:		
Newspaper mats.....	(26)	78.8
Window displays.....	(9)	27.3
Movies—slides and/or film.....	(6)	18.2
Radio—TV.....	(7)	21.2
Other.....	(4)	12.1
Business forms:		
Order forms.....	(24)	72.7
Contract forms.....	(16)	48.5
Certificates of completion.....	(11)	33.3
Waiver liens.....	(10)	30.3
Mortgage forms.....	(9)	27.3
(Number of manufacturers).....	(33)	.....

*These are the number reporting for each item. All manufacturers reported. Some may not have reported everything they furnish due to forgetting some at the time of the interview.

Despite the low advertising budget and other limited sales aids made available by manufac-

turers at the time of this study (see earlier discussion under Sales Practices of Dealers), there is an indication that these aspects of the manufacturers' selling program will be stepped up in the immediate future. Only two manufacturers anticipated a lower advertising allocation in 1951 than in 1950 while the balance either proposed to allocate the same budget or increase it. There also appears to be a tendency toward improving or adding to the number of items of printed material and other aids which manufacturers are providing to dealers.

Transportation and Storage.—Trucks, either company owned or contract carrier, are used primarily for transporting house packages from factory to the locality where the house is to be erected, because of the need of scheduling the arrival of the house package at the exact time it is needed by the erection crew. Based on the number of houses shipped in 1950 by the manufacturers covered by this study, 48.7 percent were transported by contract carrier trucks, 41.5 percent by company owned trucks and 9.8 percent by rail.

More manufacturers use contract carriers than use company-owned trucks. Some use a combination of the two; and some use either a combination of company trucks and rail or a combination of contract carrier and rail. The percent distribution is shown in table 24.

TABLE 24.—*Percent of Manufacturers Using Specified Methods of Transporting House Packages*

Method of transportation	Manufacturers	
	(Number)	Percent
Company-owned trucks only.....	(11)	26.2
Contract carrier trucks only.....	(17)	40.5
Combination of company trucks and contract carrier trucks.....	(4)	9.5
Combination of company trucks and rail.....	(3)	7.1
Combination of contract carrier trucks and rail.....	(7)	16.7
Total.....	(42)	100.0

Manufacturers generally report an economic shipping radius by truck between 300 and 350 miles from the plant (although one manufacturer reports it as high as 700 miles). Some manufacturers report using trucks beyond the economic radius primarily for reasons of convenience in site delivery.

No uniformity is found among manufacturers with regard to the method of charging for transportation. Also, because of the varying nature of the house package shipped by different manufacturers, resulting in different sizes and weights of the package, different transportation charges are required. In some instances the entire house package is shipped on a single truck, but in other instances two trucks are required. The cost per mile quoted ranges from 30¢ to 70¢, but in some instances there is free delivery within a certain radius of the plant.

Some manufacturers report that trucks are used to pick up materials and supplies on their return trips to the factory.

As can be derived from table 24, approximately one out of four manufacturers use the railroad for some shipments. One manufacturer reports using rail for 80 percent of its shipping, another for 42 percent, and another for 35 percent. The balance of the manufacturers reporting used this method for less than 25 percent of their shipping. Railroads are usually used when the shipping rates to the destination are less than the trucking costs plus the cost of delivery of the package to the site at destination. The cost of moving the package from the railroad siding to the building site is reported by some dealers to range from \$50 to \$75. Usually two houses are shipped in one freight car in order to take advantage of the carload rate, or parts of several houses are sometimes loaded if the dealer is building a project development.

The problem of transportation is reported to be most serious among those manufacturers building a complete house in the factory and transporting it all in one piece. Usually these houses can be transported only over a limited area, and secondary roads are frequently used. Special equipment is required for loading and unloading. Often special moving permits are required and a complete knowledge is needed of the roads and streets over which the completed house is to be moved.¹⁶

As indicated in the discussion under Finance, most manufacturers at the time of this study were producing houses only "on order." This reduces the storage problem for the completed house package. However, most manufacturers

usually carry an inventory of certain panels, windows, doors and other house parts for which storage is required. The extent of material storage at the plant was not determinable in this study.

Few dealers have a storage problem because the house package usually is not received from the factory until the foundation is in and erection can begin. Approximately 50 percent of the dealers report they have access to warehousing space for spare parts and materials needed for completing the houses at the site, but only two-thirds of these dealers report that they carry an inventory which requires the use of this space. The inventories carried by these dealers vary from such small items as nails and odd parts, to large items such as furnaces, cabinets and flooring.

Damage and Shortage.—Approximately 57 percent of the dealers report they have received house packages from the factory with some damaged parts, 36 percent report no damage and the remaining 7 percent give no information on this question. Among those dealers reporting receipt of damaged parts, it is reported that the problem is not serious at the present time. The most common item damaged during the shipment of the house package is the panels, reported by approximately one out of four dealers. The other items damaged, listed in their order of importance, are as follows: windows (17 percent of all dealers); cabinets (15 percent); sinks (10 percent); doors (8 percent); trim (8 percent); heaters (8 percent); and miscellaneous including screens, roof, chimney, flooring, metal items, etc. (10 percent).

Approximately half of the dealers reporting that they had received house packages including damaged parts, report that this damage could have been prevented, in their opinion, through better packaging or handling. Slightly less than half of these dealers report the belief that the damage was caused by the carrier, while the balance are equally distributed in believing that the damage was either due to (a) poor packaging or (b) improper loading or unloading of the package. The "humping" of railroad cars is the most common complaint of the damage caused in rail transportation.

¹⁶ Most manufacturers of portable, demountable housing not covered by this study build a complete house in the factory, but use techniques which permit folding, sectionalizing, etc., thereby coming within highway limit requirements.

Approximately 56 percent of the dealers report that the damaged parts are replaced through claim to the manufacturer, 24 percent report replacement through claim to the carrier, 10 percent report that they replace the damaged parts themselves, and the remaining 10 percent give no information on this question.

A total of 50 percent of the dealers report that they had also experienced shortages in the receipt of the house package, but indicate that the shortage was usually of a minor nature. Over half of these dealers report that the short items were either hardware, trim or small parts, a third of the dealers report that they were structural elements (panels, doors, windows, roofing, etc.) and the balance report that the shortage was in packaged items (cabinets, heaters, sinks, and so on).

The usual procedure for handling shortages is to write or telephone the manufacturer and "back order" the item missing. A small percent of the dealers indicate that they buy the item locally, if possible, and are reimbursed by the manufacturer. Some dealers indicate that if the item is not expensive they purchase it and do not ask for reimbursement.

Pricing Policies of Manufacturers.—Two-thirds of the manufacturers (22) having dealer organizations follow the pricing policy of quoting a net price to dealers, while the remaining one-third (11) quote a list price with discounts. The reason for this different pattern was not determinable and the difference between the two types does not appear to be highly significant.

With regard to the terms of sale, 14 of the manufacturers require a percent of the price of the house package with the order for that package. The percent ranges from 2 percent to 33 percent among the different manufacturers. Nine manufacturers require a certain dollar amount with the order, the amount ranging from \$50 to \$500 among different manufacturers. Most of the remaining manufacturers (three gave no information on this question) do not require any down payment with the order. A high percent of these manufacturers, however, ship the house package cash on delivery. Among those manufacturers requiring a percent of the price or a specific dollar amount with the order, in most

instances the balance is due upon delivery of the package to the site. Four manufacturers, however, provide five to fifteen days for payment.

In addition to the discount given dealers under the quoted list price (as mentioned for the 11 manufacturers above) certain manufacturers give cash discounts, quantity discounts and discounts for taking houses during winter months. Cash discounts are given by eight manufacturers. The usual pattern is to give a 1 percent or 2 percent discount for payment in ten or fifteen days, among those manufacturers who do not ship the package c.o.d. Several manufacturers give a 1 percent or 2 percent discount if the full payment accompanies the order or if the entire payment is made on delivery of the package.

Fourteen manufacturers give quantity discounts. The amount of discount varies greatly and there is no pattern among these manufacturers. Some manufacturers provide a 1 percent discount for five houses, others a discount of \$50 per house if at least five houses are ordered in any month, still others \$100 per unit if more than 25 houses are ordered in any year, and so on. It is found that quantity discounts are given more frequently by those prefabricators who do not seek a high degree of standardization in the ultimate house models sold; that is, among those firms who have the philosophy of being a service organization for the existing house building industry as against those who produce a product with a high degree of standardization and who frequently use brand names for the product being sold to their dealers.¹⁷

Only two manufacturers give discounts to dealers for taking houses during the winter months. Although several other manufacturers report that they have tested this procedure or have considered it and decided against it, the two manufacturers currently giving seasonal discounts indicate that it does increase "off season" sales. These are rather special situations, and manufacturers for the most part report the belief that the dealer would build in the winter season if weather conditions permitted and that any discount would have little effect upon his decision.

¹⁷ While there has been great anticipation on the part of some manufacturers for "fleet" sales (i. e., industrial sales), as seen in the foregoing discussion on Channels of Distribution, sales of this type remain more or less a myth in the industry today.

Section II

Precepts for Marketing Prefabricated Houses

The preceding section of this study reviews existing marketing practices in the field of prefabricated housing. This description shows that except for isolated instances there has been, to date, little planning of a marketing program among the existing manufacturers of this young industry. It is indicated that because of circumstances during the last few years there probably has been no great need for an organized program in order to sell a number of housing units satisfactory to most manufacturers.

However, there are already indications of changing market conditions and it is important at this time that the industry look at its future.

Furthermore, any manufacturer should plan his program for marketing the product at a very early stage. Accordingly, the prefabricated house manufacturer should establish sound marketing policies for his firm's operation, that is, a set of principles or rules of action that his firm will follow in order to achieve its goal. There should be *continuous* planning in order that the manufacturer may have proper policies in relation to the changing requirements of his operation.

The lack of policies, at least policies developed with forethought, is evident during this study. This short-coming in the industry is especially obvious when the attempt is made to analyze the marketing practices of the industry and to classify those practices in order that they might be more readily understood by the general public.

Of course no one policy is appropriate for all manufacturers. Each must establish his own

goal and plan his own operation to achieve that goal. However, there are certain general characteristics which should have application to the policies of all of the manufacturers in the industry. Briefly summarized these are as follows:

(a) *Definiteness*.—A manufacturer's policy should be clear and precise. It should contain sufficient definiteness that it will serve as a practical and accurate guide to the firm's operation.

(b) *Comprehensiveness*.—The policy should be sufficiently comprehensive to cover all circumstances likely to arise in the marketing of the manufacturer's product.

(c) *Stability*.—The policy should be sufficiently stable to serve as a guide for the manufacturer's operation over a reasonable period of time; that is, it should be formulated so that it will cover the operations over a period of time and not have to be changed from week to week or month to month.

(d) *Flexibility*.—Within the above definition of stability, the policy still should be sufficiently flexible to allow leeway for day to day operations as minor new developments occur.

In addition to the above characteristics, the policies established by prefabricated house manufacturers should be progressive and forward looking, they should be understandable to all of the members of the manufacturer's and its dealer organizations, and, of course, it must

be in conformity with and complementary to other major policies established by the manufacturers in connection with such factors as procurement, design, production financing and so on.

Necessarily, in the discussion in section 1, certain marketing criteria have been pointed out from time to time. However, some criteria believed to be important are not covered there, and others need reemphasis. It is the purpose of this section of the study to accomplish that. The discussion which follows in this section is divided into a number of major segments.

(a) Analysis of the national and local markets.

(b) The product in relation to the market.

(c) Channels of distribution.

(d) Sales policies.

(e) Finance policies.

(f) Erection and service policies.

In addition to relying upon the findings with regard to practices in the industry today, considerable reliance is placed in the following discussion on practices in the field of marketing generally, and on the field of building and real estate specifically, in this attempt to establish certain criteria for the industry.

Analysis of the Market

Market analysis in the case of prefabricated housing is required at two levels: the manufacturer level, since the manufacturer should become acquainted with the various communities which represent the best market for his product; and the local level, since the dealer should have knowledge of consumer demand factors within the community or local marketing area he serves.

To date, there has been little analysis on either level in this industry. The situation which has existed within the industry, however, is not unlike similar situations which have existed in other new industries. It has generally taken some time before an industry could organize itself and undertake the necessary planning which should desirably precede the beginning of operations but which most certainly should precede any significant expansion of operations. As described in the first section of this report, few manufacturers have individuals in their personnel organization un-

dertaking any market analysis. It has been the practice of most of the manufacturers to sign up the dealer prospect "on the spot" especially if those prospects have sufficient funds to purchase the first few houses. Likewise, in practically no instances have dealers undertaken any analysis of consumer demand within the communities they serve.

In establishing a market analysis program on a sound basis, a first requirement is the delineation of the geographic area which can be economically served by the manufacturer. The manufacturer must remember that this area should include only that amount of territory which can be covered before his distribution costs offset the savings from factory production of his product, unless there are significant outstanding factors for delineating the area on another basis. In other words, one of the primary justifications of mass production is lower cost of a similar product for the consumer; but when shipping and other distribution costs become so great as to offset the cost saving in mass production, the justification of that production becomes more questionable. (The exception to this would be the instances where the product is not the same; i. e., where through factory production advantages could be achieved in design features, erection, and so on.)

Several factors are important in "qualifying" a community for the manufacturer's product. One of the most important is the building code problem. Another is the availability of lots or land. Still another is the labor supply. (The prefabricated house manufacturer should find that he is in a better competitive position with conventional housing in those areas where there is a shortage of labor and high labor costs.) Another factor is the need for speedy construction in the community. (For example, in the "defense" areas.) Still another is the availability of mortgage loan sources. Another is the need for low-priced housing. (The prefabricated house manufacturer should find that he is in a better competitive position in areas where only high-priced housing is being constructed by conventional builders if he produces a lower-priced house.) Finally, there is the factor of public housing requirements, since some local housing authorities have shown an interest in using prefabricated houses in low-rent housing projects.

In the manufacturer's selection of communities

where he plans to issue dealer franchises, it is important that he keep the "diversification" or "distribution" of risk principle in mind and issue franchises in different types of communities, that is, communities of different sizes, in different geographic locations, communities having different types of economic background and so on.

The problem of "distribution of the risk" is also important in the selection of dealers in the communities which "qualify" for the manufacturer's product. In order to avoid "putting all the eggs in one basket" it is important to maintain in the manufacturer's dealer organization different types of dealers. For example, there should be large, small and medium size dealership operations. In large cities, the manufacturer will probably find it desirable to have several dealerships. There might be contract builders and nonbuilders, and there might be dealers of different backgrounds. The manufacturer will want to determine whether he will continue to serve the same type of consumer through his dealer organization as he has in the past (see earlier discussion on types of customers), or whether he will want to focus at least a part of his marketing program toward new types of customers. On this factor much assistance should be given him by his dealer organization, through any formal or informal studies which they may undertake of the consumer demand in their respective communities.

Another important factor is the extent to which prefabricated houses are accepted in the respective communities. Up to a certain number of prefabricated house dealers (which number has not been determined, but might be several even for middle-sized communities), the presence of dealers representing several manufacturers will be helpful to *all* dealers. Presumably, with more dealers, more prefabricated houses will be offered and sold. This, in turn, will assist in obtaining a broader knowledge of the nature of prefabricated houses. The more that are sold, the greater acceptance from the standpoint of all parties—the consumer, financing institutions, labor, and city officials.

In summary, it appears important that in a market analysis program a manufacturer select the best communities within the economic radius which he can serve from the plant or plants, that he select only the number of dealers which

his home office organization is capable of adequately servicing, and that he, through his dealer organization, keep in close touch with the trend in consumer demand. This market analysis requirement of prefabricated housing manufacturers appears to be of sufficient importance to have the responsibility delegated to an individual or several individuals on the staff of the sales department. Because of constantly changing market conditions, this staff function should be a continuing one rather than one which sets up an original program and does not allow that program to be adapted to changing marketing conditions.

The Product in Relation to the Market

As an integral part of his over-all marketing program, the prefabricated house manufacturer should establish adequate policies with regard to the type of product which he proposes to market. Existing manufacturers have generally established some policies of this nature. For example, it can be seen from the discussions earlier in this study that some manufacturers have decided upon a policy of a standardized product and others tend toward a more or less "custom-built" product. Some manufacturers attempt both. Also, it has been seen that some manufacturers today focus their program primarily on a low-priced house, while others focus primarily on a middle- or higher-priced house. Closely related to the item of price is, of course, the size and general quality of the house and the type of materials out of which it is built. There is another variation in pattern among existing manufacturers in regard to the design of the house. Some have restricted their "product line" to the colonial design, while others have tended toward what might be termed the "conservative modern." In the past some of the prefabricators have attempted to sell what might be termed "modern." There is little variation today with regard to type of materials, excepting the variation between wood and plywood. (Some manufacturers in the past have experimented with other materials. The most notable example is Lustron's steel house. Other examples include experimentation with aluminum and concrete. One existing manufacturer is currently experimenting with the use of steel.)

An interesting factor in relation to the problem of the product and its market is the fact that the term "market" in this instance is not confined to the "consumer" market; rather, the manufacturer when establishing his program must also take cognizance of the "mortgage" market which embraces both private financial institutions and the government. Local governments also become involved in this problem, not from the standpoint of the mortgage aspect, but rather from the standpoint of building codes and zoning regulations. The local housing authority is involved from the standpoint of public housing.¹

In other words, in designing the product in relation to its "market," it is necessary for the manufacturer to formulate company policies on such factors as quality, price, style, and materials in relation to the demands of the different groups of which the consumer is only one.

The above does not imply that the manufacturer's product must necessarily conform to "preferences" of the past. If this were the case, in this industry and others, little progress would be made in the future. It should be anticipated that insofar as house building techniques, including materials, design and similar factors are concerned, the prefabricated housing industry, because of the mass production aspect, should become the leader of progress in the housing field. History has shown that design and innovations which may come about 75, 50 or even 25 years hence may not be acceptable today. On the other hand, there is ample evidence that yesterday's house need not be built tomorrow, and the prefabricated housing industry should recognize that one era may now be ending and another just beginning.

The Product in Relation to Channels of Distribution

The nature of any product definitely influences the channel of distribution through which it is marketed. Theoretically and in practice, there are a number of channels of distribution

ranging from the more complex of manufacturer—functional middleman²—wholesaler—retailer—consumer, to the most direct, manufacturer—consumer. Generally speaking, the bulkier and more durable the product, the more direct is the channel of distribution between the producer and consumer.

This would immediately suggest the elimination of all possible middlemen in the distribution of prefabricated houses. Under some circumstances manufacturers are actually using the direct manufacturer—consumer channel. In the instance of prefabricated housing, this imposes certain requirements on the manufacturer which are brought about through his direct relations with the consumer. Some of these include the fact that the manufacturer must erect the shell and complete the house, he must assist in arranging the financing for the consumer, and he must handle such other problems as local market analysis, local sales organization, and advertising.

The existence of the need for these last mentioned functions indicates that the desirable channel of distribution for the prefabricated house manufacturer, especially the manufacturer expecting to market houses beyond his local community, is the manufacturer—retailer—consumer channel. As pointed out in the earlier section of this study, this is the channel of distribution predominantly in use today.

Under this channel of distribution the "retailer" might have different characteristics under different circumstances. In fact, it is pointed out earlier in this study that within the industry today the retailer in most instances is a builder or contractor, but in other instances is a real estate, finance and/or insurance firm. It is also pointed out that two other types of outlets, department stores and lumber dealers, have been used in the past but do not exist in important numbers today. Some possible reasons for this situation were given earlier.

Both the building contractors and the real estate firms have certain characteristics that make

¹ At present most prefabricated house manufacturers limit their product line to one-story houses which, from the standpoint of the problem of density, increases the project cost and does not make the units as feasible for public housing in certain areas as they otherwise might be. In fact, at the writing of this report in only two localities—New Albany, Ind., and Georgetown, Ill.—have prefabricated houses been used for publicly-financed low-rent housing projects.

² Functional middleman or agent is here defined as one who directly assists in effecting a change in ownership but does not himself take title to the goods.

them especially adaptable to becoming retail outlets for prefabricated housing. The builder is a "production" man—he knows construction and needs little direction in this field. On the other hand, he is not necessarily "sales minded." The real estate firm is "sales minded" but frequently does not have direct building experience. Often there exist combinations or variations of these two types of outlets.

Some manufacturers have found that the "controlled dealership" has been a useful tool in their operation. Such controlled retail outlets not only serve the purpose of permitting experimentation with such functions as the erection of the manufacturer's house, but also permit experimentation with new types of selling and advertising programs and similar factors.

Related to the problem of the channel of distribution is the physical method of transporting the product. Because of the nature of the prefabricated house, direct shipment from factory to site is essential. The methods of shipping being used today include company-owned truck carrier, contract truck carrier, and rail. As indicated in the earlier discussion, an advantage of truck carrier over rail is the possibility of more precise scheduling of the delivery of the house package to the site. On the other hand, truck shipments beyond a certain distance become uneconomical when compared with rail. It is important that the manufacturer analyze transportation costs to determine at what point truck shipments become uneconomical.

Company-owned truck distribution has advantages over contract carrier shipping from the standpoint of providing the manufacturer the greatest control over his transportation. On the other hand the use of contract carriers requires no capital investment in equipment and frequently it has been found that an arrangement could be made through contract to adequately meet the requirements of the manufacturer.

Storage is not one of the important marketing functions in the prefabricated housing field, except for inventory materials. Experience has shown, however, that the inventory storage problem has increased both when certain parts of the house were produced during periods of bad weather or off season in order to maintain a stable labor force and, in periods of increasing prices, when a greater supply of inventory

materials were procured primarily because speculation suggested higher prices in the near future. The storage problem for certain parts of the house, such as panels or roof trusses, is made less difficult because of the uniformity of these items.

Earlier parts of this study, however, show that most prefabricated housing units are sold to the ultimate consumer on a contract basis, and furthermore, most manufacturers confine their production operation to orders at hand. In other words, there is little speculation on the part of either the dealer or the manufacturer. If, as might be anticipated, this method of operation is continued in the future, it should minimize serious problems of storage and warehousing. On the other hand, it should be pointed out that *producing a house in a factory only after an order is received would appear to be an inefficient method of factory operation unless a satisfactory flow of orders is maintained.* The prefabricated housing industry someday may want to assume the risk of a certain volume of production ahead of orders for the reason of attaining more economical production.

An area which requires further study is that of regional warehousing. Some manufacturers have established multiple manufacturing plants in order to serve different geographic areas. So long as the operation in each of the plants is confined to the production of housing units sold before the production operation begins, there is little speculation involved. There has been no experience, however, to indicate whether a system of regional warehouses, which would imply a greater degree of speculation, might be more economical in the long run.

Sales Policies

There are many aspects of "sales policy" which are important to a manufacturer and most of them carry over to the manufacture of prefabricated housing. Only a few of these factors can be touched upon here.

Sales Organization.—It is believed highly significant that while each of the manufacturers covered in this study sold more than 100 houses in 1950, some of them have practically no sales organization. In analyzing various manufacturers' operations, often it is found that little emphasis is placed on sales organization especially when compared with the manufacturers' organi-

zations for the production aspects of his operation. In many instances, in fact, "production" personnel are being utilized to carry out the sales function of the firm. Risking the error of too great repetition, it is pointed out again that many companies thrived largely because of the type of market which existed.

It would seem essential that any manufacturer proposing large-scale production of prefabricated houses should have in his organization a group of individuals, who as a group carry the responsibility related to the problems of selling the product. The organization must be so established that each individual has specific duties and responsibilities and knows what they are, and he needs to know to whom he reports and the extent of his own authority. Good organization encourages teamwork and a willingness to work toward a common goal.

A manufacturer would quickly recognize the production problem if his plant lay-out was not right—for example, if the wall panel had to be held up awaiting the arrival of windows. This is a tangible problem and one with which the manufacturer is usually familiar. It is because organizational problems are usually more intangible that they are often felt to be only "theoretical" and the executive feels he should be doing something more "practical."

The sales organization for a manufacturer has certain functions to perform, namely, to sell the house package at a profit and to continue selling more and more house packages, still at a profit, thus insuring the continued growth of the company. Practically all manufacturers of prefabricated houses have visions of growing larger. The responsibility for this growth lies directly on their sales organization.

As pointed out in the earlier section of this study the majority of manufacturers are comparatively small and consequently their sales organizations are small. Often it is only top management that makes up the sales organization but if the manufacturer plans to grow, his sales organization should be given early attention.

Management of Selling.—Once a sales organization is established, it is important for the prefabricated house manufacturer (as it is with other industries) to determine certain personnel procedures which will be most useful in carrying out the sales program of the firm.

With regard to all of the personnel in the sales program, including management, salesmen and even dealers there are several important management problems including recruitment, selection, training, compensation, and supervision.

In the recruitment of sales personnel it is first necessary to define the nature of the job. Next it is important to find the best qualified individual to meet the job requirements established. Finally, after the individual is selected, it is necessary to train him. In regard to the latter problem it is important that the employee understand his job, that he have confidence in the manufacturer he is representing and that he have a full understanding of policies under which his company operates.

There are different manners of compensation which might be used, many of which are being practiced by different manufacturers today. The most important of these are the straight salary plan, the commission plan or a combination of the two. Individual manufacturers may have personal preferences.

Whichever plan is adopted, it is important that the plan possess certain general characteristics:

(a) It should encourage salesmen to act in accordance with established company policies.

(b) It should be fair to both salesmen and company—the salesmen should be assured of some regularity in earnings while the company should be able to count on competitive selling costs.

(c) It should provide incentive sufficient to keep the salesmen actively employed.

(d) It should be simple—complicated plans not only are not understood by salesmen but also are likely to be costly because of the clerical time involved in computing the compensation.

(e) It should provide reward for additional and special efforts.

(f) It should be restudied periodically to determine if changing conditions require modifications. The salesmen should be consulted prior to initiating any change.

Advertising.—Advertising can be an extremely useful means for fulfilling several needs of the

manufacturer, in addition to fulfilling needs on the part of the dealer. In each case, however, the advertising program should be thoughtfully planned beforehand. Major steps in developing an advertising program include (a) determination of its objectives, (b) an estimate of its cost, (c) selection of the appeals to be used, (d) the development of the message to be included, (e) the choice of the media to be used, and (f) the provision for coordination of advertising with the other elements in the promotional program, notably the efforts of salesmen.

The first step is to determine the objective of the program. It is noted earlier that to date advertising has served several purposes. In addition to acquainting the consumer with the product, many manufacturers have used advertising to locate potential dealers and in some instances it has been used to acquaint financial institutions with their firm and its products. The extent to which advertising is used for any of these purposes will be determined primarily by the needs of the moment or the needs over a longer period of time and the budget. Different prefabricated house manufacturers have used different methods of budgeting advertising cost, the most important of which are as follows: (a) A percent of past sales or profits, (b) a percent of anticipated future sales, (c) an arbitrary amount which is believed necessary to accomplish a certain job. The prefabricated housing industry may find that in a change from the "sellers'" market a greater outlay will be required in the future than has been found necessary in the past.

The content of the advertising message will, of course, depend upon the person or group to which the advertising is directed. The industry, including individual manufacturers and their trade associations, has acquainted many *builders* through advertisements in media read and seen by the home-building group. They have also, in some instances, acquainted *financial institutions* through advertising in media directed to them. As reported earlier, although there have been few large-scale advertising programs by individual firms within the industry, the highest proportion of the minor advertising budget which has existed has included advertising directed to the *consumer*.

These various groups may best be served by different advertising media. For the consumer,

the use of newspaper advertising has been most common, although in some instances, radio and even magazines and television have been used. The newspaper advertising has probably been preferred for several reasons: (a) most families read at least one newspaper, (b) newspapers cover relatively local areas, (c) newspaper advertising is timely, and (d) people interested in house buying usually turn to the real estate page of the newspaper.

Magazines and trade journals have been used primarily in reaching potential dealers and financial institutions. Little use has been made of the publications directed to the public as a whole, but greater concentration has been made in magazines which special groups representing potential dealers might read.

Other general types of advertising which have been used to a greater degree within the industry include the classified section of the telephone directory, descriptive folders, pamphlets, brochures and the like. A deficiency which exists in some of the consumer advertising is the fact that many of these materials have lacked "woman appeal." In fact, it is evident that some prefabricated housing firms not only have used erroneous appeals in the advertising but also have had poor development of the message and improper direction of the advertising.

Whatever means are used as selling aids and advertising in a manufacturer's sales program, it is highly important that there be complete coordination between the advertising program and the other sales promotional effort of the firm.

Control of Sales Program.—It is reported in an earlier part of this study that many manufacturers have sought to retain certain controls over their dealers but for the most part these controls have been ineffectively administered. On the other hand, as a matter of policy it seems highly important that certain controls be enforced.

A control system with regard to the selling program of a prefabricated house manufacturer might basically involve three major steps: (a) it should provide for the collection of needed information with respect to past performance, (b) it should involve the establishment of standards which serve as a basis for comparison and (c) it should permit the comparison of

operating results with the goals, quotas or other yardsticks which have been developed.

These controls should be exercised over the several aspects of sales policy of the manufacturer. They should be exercised over personal selling and the advertising program, both from the standpoint of the home office operation and the operation of the dealer organization.

Pricing.—The prefabricated housing industry has an opportunity of developing pricing policies for its product which have not existed heretofore. Too frequently in the conventional housing industry the policy has been one of “charging what the market will bear.” When this practice was most prevalent the small home builder was not always injured as a result of the practice, because the volume of output was small.

Such is not the case, however, within the prefabricated housing industry. In this industry one of the primary factors in the progress which it makes in the future will be determined by the favorable cost (and price) position it can maintain with regard to its primary competition, the conventionally built house.

A commonly accepted method of pricing would limit the dealer to a reasonable mark-up without, on the one hand, jeopardizing his position by too narrow a margin of profit, or, on the other hand, jeopardizing his relations with the public by too broad a margin of profit.

The advantages of a standardized product which are described earlier in this report would also tend to carry over to the advantages of a standardized price if this became a possibility within the industry. The history of the past few years has not given too much encouragement of this possibility even with regard to the prefabricated house, although during the field study there were some instances of a standardized price being quoted to consumers in some communities by some of the manufacturers. The difficulties which have arisen in the past have been due primarily to the fact that often in the advance publicity of a manufacturer the estimated final price of the house was announced in advertising or press releases before actual production costs were known. Much harm was done when the product was finally placed on the market and the sales price was necessarily higher than that mentioned in earlier releases. With proper caution being exercised on this factor, some advantage would stand to be gained if

prices for the house without lot were standardized at least within a narrow range, and within specific communities.

Finance Policy

A detailed discussion of the finance problem is given earlier in this study. It is mentioned there that this problem is one of the most crucial in the industry today. This fact bespeaks the need for adequate policies on finance, both from the standpoint of the manufacturer and the dealer.

From the earlier discussion it can be concluded that the long-term or “mortgage” financing requirements of the consumer are most important in the prefabricated housing industry—a situation which is the same as that of conventional housing but quite different from that of most other products where only short-term financing is needed.

Because of the detailed nature of the earlier discussion, only a few comments are added at this point. It is believed important, however, to reemphasize certain matters.

Perhaps the primary policy decision with regard to problems of finance which must be made by the manufacturer is the extent to which he will aid his dealer organization in arranging the permanent financing of the customers. It will be recalled that three patterns are existent today: (a) those manufacturers who have an open line of credit from existing financial institutions and utilize this line of credit in assisting their dealer organizations in their financing problem, (b) those manufacturers who utilize a mortgage company for interim financing, and (c) those manufacturers who have established a subsidiary or a closely related firm to serve as a mortgage loan company for their dealers.

A sound policy on finance would relate the credit requirement of the dealer organization to the manufacturer's scope of operation; that is, manufacturers of different sizes would find that the credit requirement would vary in size. A small firm may as a matter of policy utilize existing financial institutions and depend upon its relationship with those institutions for the line of credit required. On the other hand, larger manufacturers may find it necessary to make special arrangements for sizable additional funds. It has been seen from earlier discussions in this report that if the long-term credit required

by the ultimate consumer can be arranged, the financing at other levels for the manufacturer does not constitute as serious a problem. (This discussion does not pertain to "production" financing required initially by the manufacturer.)

The "distribution of risk" principle again becomes significant from the standpoint of financing the dealer's operation. Sources of mortgage financing include savings and loan associations, commercial and savings banks, and life insurance companies, in addition to the mortgage loan companies and other sources. It is sometimes found that the mortgage portfolios of particular institutions become filled and the mortgage source dries up, and, unless more than one source is available, the dealer's operations may be jeopardized.

Under circumstances today with regard to urban real estate financing, it is also extremely important to recognize in a finance policy of the manufacturer the important role played by certain Government agencies. The Federal Housing Administration holds such a position of importance in the urban house financing field that its approval is often a prerequisite to financing, even in certain instances where the mortgage might not be FHA-insured. It is essential, therefore, that before operations are begun by a new manufacturer that an FHA engineering bulletin, approving the manufacturer's system of construction, be obtained. Furthermore, as most manufacturers cover a broader geographic area than any one state or district FHA insuring office, it is important that the manufacturer establish proper relationships with the various offices in order that each may have an acquaintance with the manufacturer's product. The other major Government agency is the Veterans Administration. Each manufacturer should become completely familiar with VA policies and operations.

The importance of the conclusions described above can be confirmed by past experience of manufacturers who have attempted to by-pass some of these criteria. It has been an obstacle to the prefabricated housing industry that it has been necessary to fit itself into a pattern of financing established for the conventional building industry. On the other hand, where other prefabricated manufacturers have been unwilling or unable to fit their operation into this pattern it has been necessary to resort primarily

to "cash" sales or small loans in regard to the bulk of their production. Because of the high unit cost of a house, the market comprised of those families capable of purchasing the product for cash or small loan is extremely limited, and the life tenure of the manufacturer serving only this market frequently is limited.

As has been indicated, the above conclusions are based on the fact that the prefabricated housing industry has found it necessary to fit itself into a pattern of financing established for the conventional housing industry. This is despite the fact that a different pattern of financing might better serve the prefabricated housing industry. This represents an area for further research. The possibility of opening up an entirely new "channel of finance" is one which might well be analyzed. The result of such a study may point to new possibilities, based on the short-term financing requirement of the house package at the plant and at the dealer level before the permanent mortgage financing is arranged. There may be some possibility of utilizing financing institutions, for example, some type of credit corporation, and a different type of financial structure than that which has been serving the conventional house building industry.

However, until such a new method of financing has evolved, manufacturers will find it necessary to continue to adapt their operations to the existing financing program.

Erection and Service Policies

Manufacturers' policies with regard to erection and control of erection processes have been fairly well established within the industry. The different aspects of this problem are discussed earlier in this report. Here again, however, it is important that the manufacturer establish definite policies with regard to erection and controls over the erection process in order to maintain this portion of his sales program on a sound and adequate basis.

It is shown earlier, however, that few manufacturers have encouraged their dealers to undertake a policy of servicing the house (not to be confused with the fulfilling of the provisions of the manufacturer's warranty on the house) once it is completed and sold. This would appear at least an idea for experimentation by the prefabricated housing industry,

especially among those manufacturers selling a "branded" product, and could be arranged in such a manner as to have the customer pay necessary charges just as he would if he were searching out service agencies on his own initiative.

In this regard, the conventional building industry might not have been expected to experiment with any extended servicing because of the small number of units usually built by a single builder or developer. Larger developers are, in fact, today beginning to undertake a greater servicing operation in regard to the housing units they build.

This might become sound policy on the part of the prefabricated house manufacturer and his dealer organization. Several recent studies have pointed to the fact that, as a result of the great mobility of the American population, and other reasons, the American family no longer only buys one housing unit in a lifetime. In fact, it is quite evident that many American families buy several.

It seems important that prefabricated house manufacturers should give serious consideration in their general policy formulation with regard to the kind and amount of service which they might give to buyers of their product, not only to create greater satisfaction on the part of the buyers but also to maintain the quality of their product and the manufacturer's reputation. Such a policy would not only take care of "preventive maintenance," but it would also serve as a channel through which the manufacturer might maintain a better knowledge of his product once it is in use, of its deficiencies and satisfactions, and of other factors which would assist in the design of new products.

The service policy of the manufacturer may be one which would encourage his retail outlet (dealer) to maintain a servicing unit to take care of housing units he has sold, or it may merely consist of an arrangement with a selected group of servicing institutions in the community (such as plumbing and heating firms, electrical firms, and painting firms) who would handle all of the required work on the manufacturer's houses in a community. (A word of caution should be issued that a pitfall of establishing such a policy would be the lack of performance, once the policy is established. The manufacturer would want to be certain he could

perform, or arrange the performance of, the necessary obligations in order not to damage his public relations.)

Conclusion

Based on the position the prefabricated housing industry has now achieved, the industry should attempt to establish itself on an even firmer basis, by developing certain sound operating principles which to date it has not attempted to develop extensively. Being a consumer product, the prefabricated house is necessarily in competition with all other such products for its share of the consumer dollar. There are many recent instances, for example, where the down payment of a new house has not been available because of the purchase of a television set or new automobile. The marketing program of the prefabricated housing manufacturer should take cognizance of this fact. Basically, however, the competition of the prefabricated house is the house built through conventional methods. Judging from the ratio of prefabricated to conventional building in this Nation in the last few years it is evident that there is either strong competition for prefabricated houses from conventionally built units or there is poor selling on the part of the prefabricated housing industry. Undoubtedly both are important factors.

It is not a purpose of this study to attempt to estimate the number of housing units which should be built through prefabrication in this Nation at any time. The reasons for prefabrication accounting for *any part* of the total production are, however, important. Some of the industry's actual and potential advantages are summarized below:

1. *Lower cost.*—One of the primary justifications for prefabrication is the fact that it should result in lower housing costs, and without these lower costs (which the public expects of prefabricated housing) great strides cannot be made by the industry. Whether or not these lower costs have been achieved to date because of factory production of a portion of the house cannot be answered because there has been no objective study of this problem. This represents an area in which future study is required.

2. *Savings in Site Labor.*—While the amount of labor required for erecting different types of prefabricated houses varies, in a great many instances the erection work can be completed by a “lead” carpenter, or foreman, and three to five common laborers after the foundation is in and excluding the connection of utilities. A considerably higher number of skilled workers is needed for a conventional house unless the building operation is drawn out over a period of months. This is an important factor, especially in areas experiencing a labor shortage.

3. *Speed of Erection.*—The prefabricated house is erected much faster than the conventional house. In many instances the house can be “put under roof” in one or two days after delivery to site, by the crew mentioned above. It is usually completed for turn-key occupancy in from 2 to 6 weeks thereafter. This is an important factor to many individuals and to the Nation in times of emergency, but the prefabricated housing industry should be careful that its publicity of this advantage does not permit the implication of unsound construction.

4. *More Rapid Turnover of Capital.* From the builder’s point of view and because of the speed of erection, a more rapid turnover of capital is permitted. This could permit a lower profit and in turn lower cost for an ultimate product—other things being equal.

5. *Quoting of a Firm Price.*—Because a firm price is established for the house package and because of the builder’s experience on erection and subcontracting costs on identical or similar houses, it is usually possible for him to estimate quite precisely the final price to the customer. There is far greater variability between *estimated* and *actual* costs for the conventionally built house excepting, of course, those in project developments.

6. *Quality of Materials.*—The prefabricated house manufacturer purchases materials in large quantities and

usually has established a “quality control” system in the factory. This should assure the purchaser of materials of good quality. There is apt to be greater variation in the quality of materials used in conventional building, dependent upon the current inventory of materials on hand at the local supplier.

7. *Factory Engineering in House.*—Most of the component parts of the prefabricated house are precision cut and assembled on jig tables by factory workers, each of whom becomes a specialist in his job.

8. *Subcontracting Costs.*—Where the builder is engaged in erecting several houses with basically the same design he should be able to secure economies in subcontracting costs. To a degree, this advantage would also apply to larger conventional builders, but even when the comparison is made with them the prefabricated house manufacturer would have certain advantages where he can employ technical devices and do work at the plant which would reduce subcontracting costs. (See cost breakdown in sec. I for items of work on which costs might be reduced.) In other words, the higher the degree of prefabrication in the plant the lower should be the subcontracting costs.

9. *Seasonal Variations in Construction.*—If a prefabricated house manufacturer can develop a distribution program which will permit him to maintain a year round labor force there should be savings in labor costs. Because of the speed of erection of a prefabricated house there should be more opportunity for building during winter months, with the foundations in, than with conventional construction.

10. *Benefits Derived from Being a Part of a Large Organization.*—Just as a chain store organization has certain advantages over the single independent merchant, certain advantages accrue to the dealer selling prefabricated houses. A few of these are:

(a) The local dealer has the advantage of the manufacturer’s design

and planning service. These costs can be spread over several hundred or thousand units manufactured.

(b) Benefits of manufacturer's research program, including studies into better erection methods, other time-saving economies, merchandising practices and selling aids.

(c) Advertising and selling. The manufacturer can conduct a fairly extensive advertising and selling program with a prorated cost relatively low per housing unit if factory production is maintained.

If the prefabricated housing industry is to preserve or strengthen its position, it must emphasize the areas in which it has advantages, rather than continuing in operation on a more or less trial and error basis as it has in its early years. It need not follow so closely

patterns established by conventional builders because it can explore and develop some patterns of its own. One example might be the developing of a "service" function, especially among those manufacturers selling "brand" houses; another might be the greater utilization of developed but scattered lots as against building primarily on newly developed land; still another might be the use of different materials which might assist in reducing costs. The industry may itself find many areas of advantage.

It is also pointed out throughout this report that the situation of a "sellers'" market has existed to the benefit of the industry during the past several years. It is pointed out in the Introduction to this study that "under a declining building cycle several different conditions may be anticipated." If the prefabricated housing industry is to preserve or strengthen its position, it should prepare for those "different conditions" today.

Special Supplement

Defense and War Implications on Marketing Prefabricated Houses

The previous discussion has focused primarily on long-range implications for the prefabricated housing industry. It represents an attempt to examine systematically and to evaluate the marketing program of this industry. It was pointed out that cognizance must be taken by the industry of the factors having long-range significance if the industry is to be preserved and strengthened.

This Special Supplement focuses on the prefabricated housing industry under stepped-up defense or war conditions. It will attempt to relate, necessarily on the basis of certain hypothetical situations which may exist at the time, criteria for sound marketing methods under nonwar and nonemergency situations to criteria under possible defense or war situations.

Such criteria are needed in view of the fact that two factors are especially important with regard to the housing field under stepped-up defense or war conditions: (*a*) speed of construction and (*b*) minimum site labor requirements. Both of these factors favor the use of prefabricated housing, even though the volume of housing built during such a period may well make it difficult for all existing companies to retain an adequate production volume in housing alone to continue to remain in operation.

During such a period many different types of housing are required but for purposes of this study they might be generalized into (*a*) non-permanent (temporary or demountable) and

(*b*) permanent. Prefabricated housing, by its nature, can satisfy a portion of both requirements. The history of the last war gives adequate evidence of the role the industry can play in providing temporary housing.

Under war conditions, a very important decision must be made by the manufacturer: Will he attempt to confine his operations to the production of permanent housing, or will he convert his operations to the provision of temporary or demountable housing and perhaps such other structures as barracks and hospital buildings, or will he establish a program which would include the production of both? There are implications with regard to each of these types of programs. Under war conditions the Government undoubtedly would again become a customer for a considerable quantity of temporary or demountable houses and other temporary structures. It was under such a market as this that some of the firms which are existing today had their origin. Many other firms started under the war period, and profited under it, but could not exist when the conversion to permanent housing was necessary. For housing which needs to be erected speedily, and with minimum site labor requirements, considerable reliance would undoubtedly be placed again upon the prefabricated housing industry.

In planning its program for such a period, however, the prefabricated house manufacturer will want to become cognizant of possible im-

plications. Perhaps one of the most serious problems which the industry has faced in the post World War II period has been the need for educating the public to the fact that the industry did not necessarily produce only a temporary house and other temporary buildings; in fact, it was, and still is, necessary to convince the public that a permanent house can be built through prefabrication. With the high degree of mobility which exists in war time in the Nation's population, many families are exposed to the new housing being built. If the prefabricated houses are recognized as temporary and if the barracks are built by a prefabricated house manufacturer, this is bound to influence the future reputation of the industry.¹

The above fact must be considered by the industry if there is to be participation in a temporary housing program, as undoubtedly there would be because of the advantages of prefabrication under such a program. The industry should determine how it might participate in such a program and still maintain a reputation for being able to produce permanent housing.

In part, the decision any single manufacturer makes on the above will be governed by his possible market for permanent housing. If he is to compete in the permanent housing programs his competition with conventional housing will become more serious because of the limited number of units which might be built. However, for this limited number he should be in a better competitive position than under conditions of nonwar or nonemergency because of the earlier described advantages of prefabrication. If a manufacturer proposes to produce both permanent and temporary housing, his marketing plan should recognize this and should be developed accordingly. In war time, there is no doubt but that the manufacturer would need to revise much of his distribution organization.

In the following discussion attention will be given to the marketing implications with respect to both non-permanent and permanent housing under an emergency or war condition. For purposes of convenience, the discussion in this sec-

tion will in general take the same organization and outline as the discussion in the section immediately preceding.

Analysis of the Market

The market analysis function of the manufacturer would become one of his lesser functions under a situation of stepped-up emergency or war conditions. In fact, the market is very likely to be determined by the Government as it was under the last war. The manufacturer would probably be told where (in what communities) housing could be built. This restriction would be necessary in order to avoid the excessive use of labor and materials for new housing where it was not required for war purposes, and to direct the use of labor and materials to areas where the housing is needed for war purposes. This would require the cessation of operations of dealers in noncritical areas and as a practical matter would undoubtedly seriously alter his dealer organization.

Within the communities experiencing heavy war production activities, the prefabricated housing manufacturer might very well have two types of customers: the Government for temporary public-financed housing and the civilian war worker or member of the armed services for permanent privately financed housing. The volume, type and location of temporary housing built by the Government would be determined by the Government, which would also determine the volume and location of permanent housing.² The prefabricated house manufacturer would be in a position, perhaps informally, to keep his finger on local market conditions in order to provide a house which might fit into the permanent inventory of the community after the war on a sounder basis. This would mean, in effect, that either the manufacturer himself or his dealer would attempt to build the type of housing most sorely needed in the community in the postwar period. For example, it might mean building more three bedroom, as against two bedroom houses. It might mean not placing the houses adjacent to an industrial area, but in areas desirable for long-term use. It might mean

¹ For manufacturers producing houses with brand names, different names for "war" houses would seem appropriate and of assistance in public relations.

² Because of the depression before World War II, a relatively small number of houses had been built during a period of several years, resulting in a serious housing shortage at the beginning of the war. It is doubted that an equally serious situation would exist again; and if it did not, fewer permanent houses would be required in war time.

better subdivision planning and layout. It would certainly mean that the housing should be of such design, quality and construction that it would be a credit to the manufacturer and the community after the war.

The Product in Relation to the Market

The Government would probably determine the characteristics of temporary and demountable housing in relation to the market it is to serve. It remains to the prefabricated housing industry to establish policies in regard to the need for product change. The industry should recognize that non-permanent housing undoubtedly would constitute an important portion of its business under emergency conditions; in fact, the manufacturer probably would again be bidding on contracts for barracks, hospital buildings and the like.

Although there has been broad experience in the construction of temporary housing, demountable housing still remains a challenge. Some manufacturers are beginning experimentation with this type of housing at the present time.

In regard to the limited amount of permanent housing which might be built, the prefabricated house manufacturer should follow the criteria mentioned in the preceding section of this study. A word of caution might be issued against providing a house not including the requisite facilities for livability merely because of the existence of a war situation. Rather, where the prefabricated house manufacturer is involved in mass production, it would appear highly important that in designing his product in relation to the wartime market, he formulate sound company policies on such factors as quality, price, style, and materials as mentioned earlier. He will be serving the same type of consumer as in peace time,³ and undoubtedly the financing will carry through the same channels as before the war. Very often he will run up against the same building code and zoning problems, although experience during the last war would indicate a willingness on the part of some local governments to make some adjustment under wartime situa-

tions. In this connection, while at present the manufacturer as a general rule does not include plumbing lines, wiring and heating ducts as a part of the package, it would be comparatively easy for this to be done if the building codes and unions permitted it.

It might be stated that existing manufacturers are operating on a sufficiently flexible basis as to permit a more complete housing package and a higher degree of prefabrication if this becomes desirable. What they prefabricate is largely dependent on what is practical under the circumstances.

On the other hand, it should be pointed out that unless Government procedures are changed from those of the last war, the concept of mass production must to a degree be abandoned because of the specifications for varying types of buildings. At that time the contracts from war agencies for similar types of buildings called for such different types of construction and dictated such different specifications that production was required on a more or less job lot basis—the “job lots” sometimes representing large contracts, but more frequently small contracts, for a standardized unit.⁴

The Product in Relation to Channels of Distribution

In the preceding section of this study it was pointed out that for purposes of distributing the risk, the manufacturer might find it desirable to have several types of dealers in his dealer organization; that is, he might have large, medium sized and small dealers, or builders and nonbuilders and so on. Not all of these dealers, for example, possibly the smaller dealers, would be able to represent him adequately in all the capacities he might serve in a war community. Specifically, it is doubtful whether a small dealer, or a nonbuilder dealer, could adequately represent the manufacturer in the negotiation of bids and contracts for temporary war housing. Usually these projects are on a large-scale basis, although this may not necessarily be Government policy, and the erection forces are provided by independent contractors.

³ It was pointed out in section 1 that a high percentage of heads of those families purchasing prefabricated houses fall in the skilled, semi-skilled, unskilled and service occupational group. This represents a very important group of war workers.

⁴ If the plant investment is sufficiently low some prefabricators may obtain economical production even under small contracts.

In fact, as a practical matter there was often divided responsibility during the last war between the manufacturer and an independent contractor who was not a "dealer." This would indicate that for the non-permanent housing aspects of the prefabricated housing manufacturer's enterprise under war conditions, a larger staff would be required at the plant and the "channel of distribution" would be directly from the manufacturer to the Government.

On the other hand, the manufacturer-dealer-consumer channel of distribution would continue to be appropriate for at least a portion of the permanent housing required in the community, specifically where the dealer is so organized to handle operations under a war program. The dealer's functions would remain the same as those at the present time. He would only need to add a relationship between himself and the Government agency promulgating the war housing program and directing the financing aspect of the war housing.

Under wartime circumstances manufacturers undoubtedly would need to establish some new outlets in areas of war activity. These new outlets may take one of many forms. First, a local builder, real estate firm or other local representative might be franchised for a dealership. Second, a successful dealer in a nondefense area, who had to cease building due to the war situation, might transfer to a war area. This arrangement would have the advantage of the dealer already being familiar with the house and the manufacturer's general methods. Third, the manufacturer might establish his own dealership or subsidiary company to build in such areas. This would depend largely upon the manufacturer's financial position and available personnel.

From the standpoint of the geographical distribution of the existing prefabricated house manufacturers they are widely dispersed in all sections of the Nation, even though there is a concentration in the "prefab belt." There is little question but that a manufacturer would be better able to supply and service a builder close to the plant than one located a thousand miles away. This does not imply that those plants located a considerable distance from where houses are needed could not efficiently operate in distant areas. It is simply that as distance between plant and site increases, problems

multiply and increase in degree, although undoubtedly many of them could be overcome.

Sales Policies

There might be considerable difference between the sales policies of the manufacturer under stepped-up emergency or war conditions. It has already been indicated that his sales organization might be of a somewhat different type. In fact, a "fleet sales" department which would handle negotiations with the Government on non-permanent housing might prove essential. This department could also supplement the sales organization which would be handling the sales of permanent housing.

Few sales aids, such as advertising and brochures, would be required for the short-term period, but the manufacturer might find it desirable to maintain a minimum advertising program in order to keep his name before the public for the postwar period, especially if he proposes to sell a branded product. In fact, while the manufacturer was producing non-permanent housing, it might be desirable for him to formulate a minimum advertising program through which he could remind the public that his house had "gone to war" but would return in "permanent" character after the war. This would provide a means for overcoming a similar situation to that which followed the last war, where there was a general public opinion that all prefabricated housing was necessarily temporary in construction. *Such a program could also emphasize that speed of erection does not imply unsound construction.*

Certain sales controls would become very important under an emergency situation in order to prevent serious fluctuations in the manufacturers' production and sales programs. It might become desirable for the manufacturer to establish controls in a sales program which would relate both to the non-permanent and permanent aspects of the program. The precise nature of the controls probably would be dictated by the production problems which would occur through spasmodic "fleet sales" and large-scale subdivision developments of permanent housing in the war communities.

The pricing policies of the manufacturer would fall under the influence of the Government's domination of the national housing situation. With regard to non-permanent housing, the

price would be that of the "low bidders." For permanent housing, the Government would undoubtedly establish upper limits on the prices at which the houses might be sold. Under the latter controls, it would be necessary for the manufacturer and his dealer to determine whether an adequate margin of profit would exist if housing falling within the price limitations established by the Government was built.

Finance Policy

It might be anticipated that under emergency conditions the Government would provide greater assistance in the permanent financing of housing units in war areas, through adjustment of the normal financing policies which it holds in peace time. Title VI during the last war was an example. Both a lower down payment and a longer-term of amortization was permitted under this section of the National Housing Act. This would mean in effect that while the risk involved in providing permanent housing in certain communities might be greater than private institutions will be willing to assume, the additional risk would be assumed by the Government. For the prefabricated house manufacturer, therefore, this would mean greater assistance in arranging the mortgages on the part of consumers in these areas. Beyond this factor, many of the criteria mentioned in the preceding section of this study with regard to finance policy would equally apply under wartime conditions.

It would be expected that temporary and demountable housing would be financed directly by the Government and there would be no mortgage problem involved.

In this regard, there has always been a greater demand for rental housing than the conventional housing industry could supply. In fact, housing consumers in war communities are often forced to buy homes because conventional builders have not been able to develop a plan for providing an adequate supply of rental housing. This represents another challenge to the prefabricated housing industry. With the assistance of some new financing plan, this industry might be able to provide more rental housing in war communities than has been found possible in the past. If this could be accomplished, not only would the unreasonable demands upon consumers to *buy* a home be diminished, but undoubtedly the prefabricated housing industry

could reduce the amount of Government-built temporary housing, because in many instances such housing is built solely to satisfy rental housing needs.

Erection and Service Policies

The manufacturers' erection policies would not be changed in wartime excepting in the instance of "fleet sales" which were mentioned earlier, and the possible instance of the development of new types of demountable housing. It would appear necessary for the prefabricated house manufacturers obtaining Government contracts for large-scale housing development of non-permanent houses either to carry within their own organization (but perhaps recruited locally) adequate erection crews for the construction of the housing or to develop design of temporary units which could be erected by contractors directly for the Government.

Because of the scarcity of skilled labor under wartime circumstances, it should also be a policy of the manufacturer to be constantly analyzing erection procedures in order to maintain them on as simple a basis as possible.

The shortage of labor would create serious problems on the part of the prefabricated house manufacturer and his dealer organization in establishing or continuing a broad gauge service policy for the housing units. On the other hand, under wartime conditions such a policy might have all of the potential advantages mentioned in section II of this report. Here again, if the prefabricated house manufacturer producing a branded product could accomplish a reputation during wartime of servicing the permanent housing units which he builds, this would greatly aid the industry in any postwar period from the standpoint of reputation alone.

Conclusion

It is doubtful whether all of the manufacturers of prefabricated housing in production today could exist in any period of stepped-up defense activity or war because of the limited amount of construction undertaken in wartime, but it would appear that at least some manufacturers would play an important role during such a period. Two of the inherent advantages of prefabrication would be especially important: the minimum site labor requirement and the speed of erection.

Undoubtedly under such a situation, the industry would have a hardship worked upon itself by having to produce on a more or less job lot basis, especially such structures as barracks and hospital buildings in addition to temporary housing units of different specifications. This would call for complicated and numerous changes in plant facilities for war requirements, and further extensive changes after the war back to peace time requirements—unless Government procedures on contracts for temporary buildings are made more uniform than during the last war. Under such circumstances, it is highly important that the industry plan its operations and conduct its program so as not to again step back in the public mind as the source of only “temporary” housing. Precaution should be taken at every turn to impress the public that permanent housing can be provided by the industry.

It also appears possible that the volume of permanent housing permitted under a new war

time situation would be even more limited than during World War II. As a practical matter, the manufacturer’s dealer organization could not remain the same as in peace time. Many dealerships would necessarily cease operations (many small dealerships and dealerships in nonwar communities) and some new dealer outlets may be required. In addition, perhaps the bulk of the manufacturer’s production, certainly of temporary structures of various kinds of buildings, would be handled outside his dealer organization.

If it is found by the Government that there are sufficient advantages to maintaining the prefabricated housing industry in wartime, either for its wartime advantages or in order to maintain livelihood of the industry for peace time purposes, undoubtedly it could formulate specific contract procedures which would overcome many of the difficulties experienced in World War II.

Appendix

Need for Further Research

One of the most obvious conclusions of this study is the need for further research on certain specific marketing problems and certain other problems falling more in the area of production but having important implications in the marketing of prefabricated houses. This need arises because of the newness of the industry, its importance in the house-building field and the general lack of basic knowledge regarding the industry's operations and problems.

The reader could note areas where additional research is needed throughout the preceding report. Because so little research has been undertaken to date, however, it would be most desirable if the basic problems of the industry were studied first and detailed problems studied later.

A number of important problem areas have come to the fore in this study that might be given priority:

1. *Consumer Acceptance.*—The consumer's attitude to a product is basic to the marketing of that product. Yet, in the prefabricated housing field there has not been an objective study of consumer attitudes. Such a study would analyze the attitude of those individuals who are familiar with the prefabricated house and are in a position to pass judgment on its qualities and characteristics. Furthermore, it should also determine the nature and extent of general prejudices among consumers not completely familiar with the prefabricated house.

2. *The Finance Problem.*—It has been pointed out in this report that despite the fact that an important portion of the prefabricated house is manufactured in a factory, with the implications this has with regard to finance, the industry has had to conform not only with but fit itself into the financing patterns of the conventional housing industry. Undoubtedly there are other favorable methods of financing prefabricated housing and these should be explored. A point of departure for such a study would be an analysis of possible adaptation to the prefabricated housing industry of the financing plans of other durable items produced in whole or in part in a factory.

3. *Cost Comparability Between Prefabricated and Conventional Housing.*—It has been indicated in this study that no detailed and accurate cost comparison could be found between houses having identical or almost identical features built both conventionally and through partial factory prefabrication. This is an extremely important area where basic information is sorely needed. The future of the prefabricated housing industry rests in part on a favorable competitive cost position and unless this position (for the same house) can be established the future of the industry might be jeopardized or at least it might be pointed

out to the industry that prefabrication must provide additional amenities over conventional housing if the cost factor is not favorable. (While this research would fall in the area of production, it would have important implications in distribution.)

4. *Influence of Business Cycle.*—The field study described in this report was undertaken at a time when a relatively tight housing market existed. On the basis of the findings, the industry has proper reason to anticipate a prosperous future if this same type of market would continue to exist. Historically, however, it has been proven that the building cycle takes more drastic swings than the general business cycle. While the extreme trends which have existed in the past may be reduced in the future by the important participation of the Government in the housing field, and especially in the field of housing finance, nevertheless, it is highly important that some study be undertaken regarding the industry's possible position under different market conditions.

5. *Factory Tooling Costs for Production of Housing Units of Different Materials in Relation to Ultimate Cost of Product.*—Today most prefabricated houses are made of wood or wood products. This fact, on the one hand, results in lower factory tooling costs because of limited factory mechanization but, on the other hand, a limited degree of mass production. Other types of materials, particularly steel and aluminum, undoubtedly would require higher factory tooling costs, but could result in a higher degree of mass production. It is believed that sufficient experience could be uncovered to undertake an analysis of the point of most economical production balancing these two factors against each other: (a) capital outlay for factory and tooling, as against (b) lower ultimate production costs per housing unit through greater mass production resulting from greater plant mechanization. (While this research would fall in the area of production, it would have important implications in distribution.)

Methodology

The data included in the "Existing Marketing Practices" section of this study were obtained primarily from 43 manufacturers, 120 dealers, and several other key individuals who up until recently had held important positions in the prefabricated housing industry. In addition, representatives of several financing institutions were interviewed. The interviews were conducted by a staff of three full-time and two part-time interviewers. There were no interviews among consumers, city officials, or labor groups.

The manufacturers and dealers interviewed were widely distributed throughout the Nation geographically. A listing of those interviewed and their addresses is found at the end of this report.

An effort was made to interview all of the manufacturers producing more than 100 prefabricated houses in 1950, if they fell within the definition of prefabrication used in this report. However, since all of the manufacturers in the Nation qualifying under such a definition were not listed in the various sources checked for their names, it is known that a few were missed.

The dealers were selected on several bases. First, 20 cities were selected in a certain group of states (the "prefab belt") on a random basis and the field staff visited these cities and attempted to locate and interview all of the existing prefabricated house dealers in those selected cities. The sample thus selected was then sup-

plemented in two manners: (a) Twelve other cities were selected outside of the "universe" described above in order to give representation within the sample to such factors as regional variation, defense activity, and population. (b) In order to assure a sample of dealers which would represent all manufacturers, the manufacturers when interviewed were asked to name three dealers falling within specific qualifications. The interviewers then contacted one of these dealers.

Two schedules were prepared, one for use in interviews with manufacturers and another for use in interviews with dealers. Informal, guided interviews were conducted with the representatives of financing institutions and with those individuals who had recently been, but were no longer, in the prefabricated housing field.

The interviews consumed 2½ hours or longer. Frequently, in the instance of the manufacturers, the interviewer observed production operations in the plant, and, in the instance of the dealers, frequently observed erection of one of the houses.

There were no refusals among the manufacturers, and only one refusal among dealers.

The material in the balance of this report, outside of the "Existing Marketing Practices" section, was developed through conclusions drawn from the field work and from a review of marketing and real estate principals generally.

Glossary

Broker.—One who, for compensation, acts as the agent for another in buying or selling property.^a

Channel of distribution.—The course of ownership taken in the transfer of title for a product as it moves from manufacturer or producer to the final consumer.

Commission.—Payment for the performance of specific duties, usually measured by a percentage of another sum—as of the price paid for the property.^a

Construction financing.—Credit advanced to builders for the purpose of financing the construction of the house.

Contract.—An agreement mutually entered into by two or more parties to do certain things for a consideration.^a

Contract carrier.—A mode of transportation in which property is carried under oral or written contract.

Contracting family.—The family type in which the woman is 35 years old or older and there are no children under the age of 18.

Conventional house.—One that is constructed more or less piece by piece on the site.

Conventional mortgage.—Any mortgage not insured by the FHA or guaranteed by the VA.

Dealer-contract builder.—A prefabricated house dealer who builds and sells to the consumer primarily on a contract basis.

Dealer franchise.—A written agreement between the manufacturer and dealer regarding the dealer's operations in selling the manufacturer's product.

Dealer-nonbuilder.—A prefabricated house dealer who sells to the consumer primarily on a contract basis, but does not engage in the building operation.

Dealer-operative builder.—A prefabricated house dealer who builds and sells to the consumer primarily on a speculative basis.

Defense area.—Community or other geographic area designated by the Government within which certain regulations are effective with regard to housing construction, as a part of the national defense program.

Demonstration house.—A house used for public showing to emphasize its features as an inducement to possible purchasers.

Equity.—Interest in or value of real estate in excess of mortgaged indebtedness.^a

Escrow.—Deed or other instrument placed in the hands of a disinterested person for delivery upon the performance of certain conditions or the happening of certain contingencies.^a

Expanding family.—The family type having some children between the ages of 8 to 18.

FHA-Insured Mortgage.—Mortgage on which principal and interest are insured by the Federal Housing Administration.

Fleet sales.—The sale by the manufacturer of a quantity of housing units usually to an industrial concern or the Government. These sales are generally handled directly by the manufacturer rather than through his dealer organization.

Founding family.—The family type having some children; children are all under the age of 8.

Gross income.—Total receipts during a given period. The total revenue which, although not necessarily actually received, has accrued from all sources during a specified time.^a

Interim financing.—The financing needed for that "interim" period after the house has been manufactured but before permanent financing has been made available by or for the customer.

Marketing.—The performance of business activities directed to, and incident to, the flow of goods and services from producer to consumer or user.^b

Mean, or "Average" when used alone without qualification.—The sum total of a range of figures divided by the number of figures in the range.

Median average.—The middle-most or central figure of a range of figures when they are listed in order of magnitude; or, that figure which appears in the middle in a frequency distribution, with an equal number of small figures below it to large figures above it.

Mortgage.—A conditional conveyance of property contingent upon failure of specific performance such as the payment of a debt; the instrument making such conveyance.^a

Mortgagee.—The source of the funds for a mortgage loan and in whose favor the property serving as security is mortgaged.^a

Mortgagor.—The owner of property who borrows money and mortgages the property as security for the loan.^a

Prefab belt.—Those states in which there is a concentration of prefabricated house manufacturers and accordingly a concentration of dealers. The core of this belt includes the states of Illinois, Indiana, Ohio and Pennsylvania and other States included are Michigan, Wisconsin, Kentucky and New York.

Prefabricated house.—A prefabricated house is one having walls, partitions, floors, ceilings and/or roof composed of sections or panels varying in size which have been fabricated in

a factory prior to erection on the building foundation.^c

Prefabricated house package.—The sections or panels and other parts of the house supplied by the prefabricated house manufacturer to the dealer or others for erection and completion at the site.

Real Estate Broker.—Any person, firm, partnership, co-partnership, association or corporation who for a compensation or valuable consideration sells or offers for sale, buys or offers to buy, or negotiates the purchase or sale or exchange of real estate; or who leases or offers to lease or rents or offers for rent any real estate or the improvements thereon for others, as a whole or partial vocation. Definitions differ under licensing and other laws of various states.^a

Retail outlet.—A place of business where merchandise is sold to the ultimate consumer primarily for direct consumption and not for purposes of resale in any form or for industrial or business use.

Sellers' market.—A market in which scarcity of goods gives sellers a trading advantage over buyers.

VA—Guaranteed Mortgage.—Mortgage on which principal and interest is guaranteed by the Veterans Administration.

Young couple family.—The family type in which the woman is under 35 years of age and there are no children.

^a Holmes, Lawrence G. (editor). *The Real Estate Handbook*. New York: Prentice-Hall, Inc., 1948.

^b "Report of the Definitions Committee," *Journal of Marketing*, Vol. XIII, No. 2, October 1948.

^c *Prefabricated Homes*, Commercial Standard CS-125-47, 2d Ed., Prefabricated Home Manufacturers' Institute and U. S. Department of Commerce, Washington, D. C. 1947.

LIST OF MANUFACTURERS INTERVIEWED

- Admiral Homes, Inc.,
178 Provost Road,
Pittsburgh 27, Pa.,
Frank A. Baldus, president.
- Alleghany Homes Corp.,
26 Copeland Avenue,
Homer, N. Y.,
Stanley Nadolski, president.
- American Houses, Inc.,
165 West 46th Street,
New York 19, New York,
John C. Taylor, Jr., president.
- Atkinson, W. P., Lumber & Manu-
facturing Co.
19th Floor—Apco Tower,
Oklahoma City 2, Okla.,
W. P. Atkinson, president.
- Best, W. G., Factory-Built Homes.
Inc.
630 W. Lake Street,
Peoria 4, Ill.,
W. G. Best, president.
- Crawford, Corp.,
2019 North 3d Street,
Baton Rouge 1, La.,
W. H. Crawford, president.
- Expandable Homes, Inc.,
1266 123d Street,
Milwaukee, Wis.,
Richard M. Smith, president.
- Florida Builders, Inc.,
5200 Central Avenue,
St. Petersburg, Fla.,
J. T. Haynsworth, secretary-treas.
- Ford, Ivon R., Inc.,
McDonough, N. Y.,
Ivon R. Ford, president.
- GBH-Way Homes, Inc.,
Walnut, Ill.,
Clifford M. Hill, president.
- General Industries, Inc.,
3033 Wayne Place,
Fort Wayne 5, Ind.,
William B. F. Hall, president.
- Green Lumber Co., The,
Magnolia Street,
Laurel, Miss.,
Dawson W. Winn, vice president.
- Gunnison Homes, Inc.,
New Albany, Ind.,
John J. O'Brien, president.
- Harnischfeger Corp. (Houses
Division),
500 North Spring Street,
Port Washington, Wis.,
Robert E. Ott, general manager,
Houses Division.
- Home Building Corp.,
303 Park Avenue,
Sedalia, Mo.,
Neal O. Reyburn, president.
- Housemart, Inc., The,
18320 Lankin Avenue,
Cleveland 19, Ohio,
Benton Lefton, president.
- Houston Ready-Cut House Co.,
3601 Polk Avenue,
Houston 1, Tex.,
J. C. Suttles, president.
- Illinois Lumber Manufacturing Co.,
Cairo, Ill.,
Fred Wheeler.
- Johnson Quality Homes, Inc.,
Pemberton, N. J.,
C. Gilbert Countiss, president.
- Knox Corp.,
Thomson, Ga.,
Peter S. Knox, Jr., president.
- Lumber Fabricators, Inc.,
Fort Payne, Ala.,
W. L. Mainland, general manager.
- Marshall Lumber Co., Inc.,
330 South Kalamazoo Avenue,
Marshall, Mich.,
Louis E. Legg, president.
- Midwest Houses, Inc.,
Box 334,
Manfield, Ohio,
John L. Morley, president.
- Mobilhome Corp. of America,
115 Inyo Street,
Bakersfield, Calif.,
Hugh Curran, president.
- Mobilhome Corp. of the Twin
Cities, Inc.,
9253 Nicollet Avenue,
Minneapolis, Minn.,
J. W. Boeckh, president.
- National Homes Corp.,
315 Earl Avenue,
Lafayette, Ind.,
James R. Price, president.
- New Century Homes, Inc.,
Route 26,
Lafayette, Ind.,
John T. King, president.
- Nichols & Cox Lumber Co.,
1035 Godfrey, S. W.,
Grand Rapids 2, Mich.,
John W. Dregge, executive vice
president.
- Nicoll Lumber Co.,
2602 Middlefield Road,
Redwood City, Calif.,
Frank Roberts, general manager.
- Northern Homes Corp.,
20 Ridge Street,
Glens Falls, N. Y.,
Kenneth H. Wells, president.
- Page & Hill Homes, Inc.,
Shakopee, Minn.,
Roger R. Page, president.
- Pease Woodwork Co.,
Blue Rock & Turrill Streets,
Cincinnati 23, Ohio,
James L. Pease, president.
- Prefabricators, Inc.,
2615 Matthews Street,
Baltimore 18, Md.
- Richmond Builders, Inc.,
425 N. W. "K" Street,
Richmond, Ind.,
Charles E. Travers, president.
- Scott Homes Division, Scott
Lumber Co.,
2315 National Road, Elmwood,
Wheeling, W. Va.,
William Hadsell, general manager,
Scott Homes Division.
- Scars, Roebuck & Co.,
925 South Homan,
Chicago 7, Ill.,
W. J. McAllen, buyer prefabri-
cated buildings.
- Semico, Inc.,
Seney, Mich.,
Milo F. Conser, general manager.
- Southern Mill & Manufacturing
Co.,
Box 1087,
Tulsa 1, Okla.,
W. H. Ahrens, president.
- Southwest American Houses, Inc.,
Box 16,
Houston 1, Tex.,
M. L. Westbrook, president.
- Texas Housing Co.,
9003 Denton Drive,
Dallas 9, Tex.,
W. M. Dritt, secretary-treasurer.
- Thyer Manufacturing Corp.,
2857 Wayne Street,
Toledo 9, Ohio,
Frank Thyer, president.
- Wadsworth Building Co.,
7328 W. 80th Street,
Overland Park, Kans.,
Lawrence D. Wadsworth,
president.
- West Coast Mills,
555 State Street,
Chehalis, Wash.,
Austin E. Bee and Robert
Thompson, (partners).

LIST OF DEALERS INTERVIEWED

A & B Home Builders, Inc., 2905 Epperly Drive, Del City, Okla. Abernethy Land & Homes Corp., 704 Brisbane Building, Buffalo 3, N. Y. Ace Realty Co., 213 6th Street, Racine, Wis. Akron Homes, Inc., 1449 W. Market Street, Akron, Ohio. Arnedts & Dennis, 114 69th Street, Virginia Beach, Va. Arnold, F. P., Corp., State Tower Building, Syracuse, N. Y. Babco, Inc., 122 West 8th Street, Erie, Pa. Basinger & Gifford, 744 Midland Avenue, Midland, Pa. Berens, F. W., Sales Inc., K Street N.W., Washington, D. C. Berks Erecting Co., Reading, Pa. Blosser Building Co., Crawford Building, Topeka, Kans. Bowles, E. L., Inc., 129 Church Street, New Haven, Conn. Bruns Brothers Builders, Hill Building, Syracuse, N. Y. Callahan & Hooey, 8 E. Pulteney Street, Corning, N. Y. Cargino, A. J., 431 W. Lawrence Street, Springfield, Ill. Champ Homes, 237 East Genesee Street, Syracuse, N. Y. Charles Real Estate Co., Union Building, Syracuse, N. Y. Clark Real Estate Company, Inc., 100 University Building, Syracuse 2, N. Y. Conklin, E. J., Jr., 5 Wood Street, Bath, N. Y. Cork, John W., 8½ West Main Street, Danville, Ill.	Coyle, Reed B., Co., 3314 State Street, Erie, Pa. Crestview Co., 603 Greenfield Avenue, Pittsburgh, Pa. Crown Construction Corp., 7045 Lexington Avenue, Cleveland, Ohio. Danville Community Homes, Inc., 1431 E. Fairchild Street, Danville, Ill. Davis Wellcome Mortgage Co., 214 West 6th Street, Topeka, Kans. Dellwood Corp., 535 5th Avenue, Pittsburgh, Pa. Dewitt, N. W., Construction Co., 2nd National Bank Building, Akron, Ohio. Di Cicco, Wm. A., 1517 4th Street, Caraopolis, Pa. Domestic Sales & Service Co., 418 West 3d Street, Nesepeth, Pa. Duke Construction Co., Richmond, Va. Dunham, Thomas E., 3009 South 6th Street, Springfield, Ill. Eagan Real Estate, Inc., 205 Syracuse-Kemper Building, Syracuse, N. Y. Economy Homes, Inc., 411 Mills Street, Kalamazoo, Mich. Enterline, E. V., Plum Street, Springfield, Ohio. Erecto Homes, 315 Cecil Street, Springfield, Ohio. Eulalie Sally Co., Aiken, S. C. Factory-Built Homes, Inc., 8415 Georgia Avenue, Silver Springs, Md. Fox, R. C., 249 West Maple Street, Clyde, Ohio. Golden Key Homes, 1359 Connecticut Avenue, N.W., Washington, D. C. Good Homes, Inc., 1025 Circle Tower, Indianapolis, Ind.	Goodwill Northern Homes, 810 Commerce Building, Erie, Pa. Goucher, C. J., 4603 Manona Drive, Madison, Wis. G. S. T. Peoples Co., Inc., Weeks Building, Aiken, S. C. Gunnison Frank C., Real Estate, 340 West 8th Street, Erie, Pa. Hall, Harry, Realty Co., 311 18th Street, Rock Island, Ill. Harper & Russell Co., 1112 Peach Street, Erie, Pa. Henry, W. R., Co., 227 McDonough Street, Sandusky, Ohio. Highsmith, W. H., 1411 West 10th Street, Anderson, Ind. Hile, Chet, Guther Building, Paducah, Ky. Home Building Corp., Development Co., Kansas City, Mo. Home Way Modern Homes, Dixon, Ill. Horton, K. G., & Son, 617 Nichol Avenue, Anderson, Ind. Hunter Construction Co., Route 16, Box 589A, Indianapolis, Ind. Illiana Realty Co., 709½ Wabash Avenue, Terre Haute, Ind. Jacey, S., Golden Key Homes, Inc., 511 Main Street, Ansonia, Conn. Janson, Ernest C., Builder, Inc., 307 Mitchell Building, Springfield, Ohio. Kadak Builders, 920 Washington Street, Reading, Pa. Kerlin, D. T., 108 North 6th Street, Quincy, Ill. Kessler Homes, Inc., 1105 East 52d Street, Indianapolis, Ind. K-M Distributors, Inc., 111 North 6th Street, Paducah, Ky.
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Lafayette Homes, Inc.,
3830 Vermont Avenue,
Louisville, Ky.

Layne, H. B., Contractor, Inc.,
607 Arcue Building,
Springfield, Ohio.

Leader Homes, Inc.,
415 East Washington,
Indianapolis, Ind.

Liberty Builders, Inc.,
Polk & Nelby,
Houston, Tex.

Lincoln Homes Co.,
1818 Saw Mill Road,
Pittsburgh, Pa.

Lowry, Duane,
1553 West Jackson Street,
Springfield, Ill.

Mac Dee Building & Supply, Inc.,
404 South Fifth Street,
Louisville, Ky.

MacKenna, Wm. J., Construction
Co.,
521 Power House Road,
Aiken, S. C.

Manhard Realty Co.,
1826 3d Avenue,
Rock Island, Ill.

Manley Co., The,
1426 Milan Road,
Sandusky, Ohio.

Maple Road Village,
3501 Emerson Road,
Indianapolis, Ind.

Marriott, Nile,
1836 South MacArthur Blvd.,
Springfield, Ill.

Mason & Ellis Co.,
Rock Island Bank & Trust Building,
Rock Island, Ill.

Mattingly, Robert, Inc.,
Route 6, Long Oak Road,
Paducah, Ky.

McGrady, Michler & May, Inc.,
543 Wooster Road,
Barberton, Ohio.

McKeever, Robert, Inc.,
Shoreham Building,
Washington, D. C.

Melchiorn, Frank,
2061 North 8th Street,
Springfield, Ill.

Mills Realty Co.,
1206 Craig Avenue,
Jamesville, Wis.

Modern Home Co.,
1503 Columbus Avenue,
Sandusky, Ohio.

Morgan Construction Co.,
1317 Illinois Avenue,
Murphysboro, Ill.

New Home Constructors, Inc.,
Taylor Building,
Paducah, Ky.

Niemann Housing Corp.,
114 State Street,
Madison, Wisc.

Norbury Homes, Inc.,
1323 Main Street,
Anderson, Ind.

North American Homes Corp.,
429 W. Mt. Hope Avenue,
Lansing, Mich.

Northern Homes of Syracuse,
207 James Street,
Syracuse, N. Y.

Norton Homes, Inc.,
4521 E. Broad Street,
Columbus, Ohio.

O'Connor & Co.,
312 East Wisconsin Avenue,
Milwaukee, Wis.

Pasadena Center Homes, Inc.,
3015 Earl Street,
Pasadena (Houston), Tex.

Pfister, J. B., Co., Inc.,
Terre Haute, Ind.

Pomeroy Organization, Inc., The,
327 Montgomery Street,
Syracuse, N. Y.

Rhodes & Rutan Construction Co.,
R. R. 1,
Marion, Ind.

Robbins Homes Corp.,
2515 North 7th Street,
Terre Haute, Ind.

Schaeffer, Joseph H.,
Springfield, Ohio.

Schubel Construction Co.,
2130 Milan Road,
Sandusky, Ohio.

Scioto Homes, Inc.,
58 N. Merkle Road,
Columbus, Ohio.

Service Realty & Investment Co.,
100 East State Street,
Peoria, Ill.

Silverberg & Sinaiko, Inc.,
107 State Street,
Madison, Wis.

Simmons, E. J., Co.,
10 East 9th Street,
Lawrence, Kans.

Sisson, Howard, Co.,
708 Francis Street,
St. Joseph, Mo.

S. O. D. Builders,
Springfield, Ohio.

South Side Homes,
2025 South 28th Street,
Paducah, Ky.

Southern Construction Co.,
Highway 42,
Lake Charles, La.

Southern Finance Corp.,
Augusta, Ga.

Squires Home Builders, Inc.,
2166 Fairhill Road,
Cleveland, Ohio.

Standard Development Co.,
First National Bank Building,
Macon, Ga.

Stowell, Ken, Co.,
Douglas at Hydraulic,
Wichita 7, Kans.

Strathmore Construction Corp.,
112 Anderson Place,
Buffalo, N. Y.

Sun Homes Co.,
134 Center Street,
West Haven, Conn.

Tobin Construction Co.,
420 Bousch Street,
Norfolk, Va.

Town & Country Homes, Inc.,
1112 E. Broadway,
Louisville, Ky.

Transit Hill Corp.,
Dodge and Jefferson Streets,
Buffalo, N. Y.

Tudor Construction Co.,
Marion, Ind.

Twinbrook Real Estate Co.,
Route 8 at Denny Road,
Valencia, Pa.

Union Supply Co. (Gunnison
Homes Division),
P. O. Box 8,
Glenshaw, Pa.

United Builders, Inc.,
Glass Block Building,
Marion, Ind.

Walker Homes, Inc.,
11033 Viers Mill Road,
Wheaton, Md.

Wellfy Homes, Inc.,
212 North 9th Street,
Reading, Pa.

Wilkins, Roe,
St. John Road,
Paducah, Ky.

Wilson Realty Co.,
466 Citizens Bank Building,
Anderson, Ind.

Woodland Homes Co.,
742 Thompson Avenue,
Paducah, Ky.

**Housing
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